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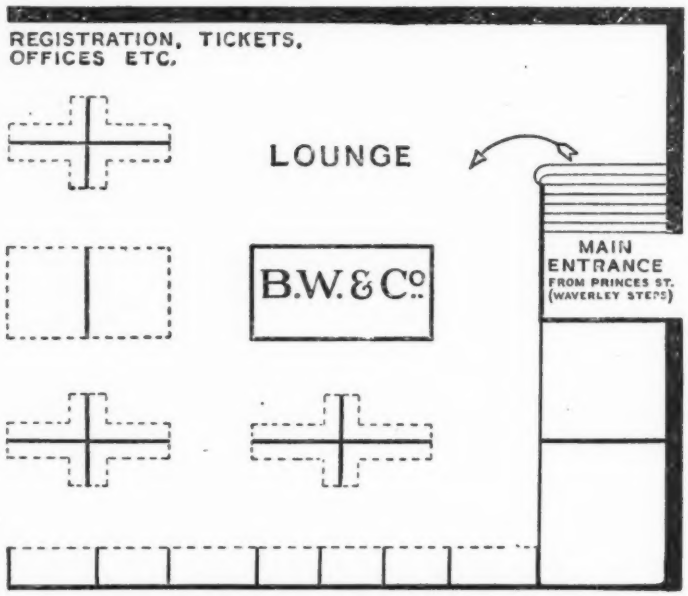

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An Address
ON
RICHARD BRIGHT: THE MAN AND THE PHYSICIAN.

GIVEN AT GUY'S HOSPITAL ON THE OCCASION OF THE CENTENARY CELEBRATION*

BY

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"For my own part I am very fond of seeing . . ."
R. BRIGHT: *Letter to his father, 26th June, 1813.*

To be asked to speak to you on Bright, on this occasion, at the scene of his activities and under these auspices, is an honour of which I am deeply sensible, so sensible that I shall not attempt to thank you.

EARLY LIFE AND TRAVELS.

Richard Bright, the third son of Richard Bright, a well-to-do and influential banker of Ham Green, Somerset, was born at Queen Square, in Bristol, on September 28th, 1789, seven and a half years after Laennec. At the private school of Dr. Estlin, near Bristol, he was the companion of Henry, afterwards Sir Henry, Holland, who speaks of him as his "most intimate friend." Later Bright studied at Exeter under the private tuition of Dr. Carpenter, and in 1808 matriculated at Edinburgh, where, during his first year, he devoted himself largely to the lectures of Dugald Stewart, on moral philosophy and political economy, to those of Playfair, on natural philosophy, and of Leslie, on mathematics. The following year he applied to the study of anatomy, working under Hope, Monroe, and Duncan.

In the summer of 1810 Bright and his friend Holland accompanied Sir George Steuart Mackenzie on an expedition to Iceland. Mackenzie speaks cordially of his young companions and of Bright's contributions to the study of the botany and zoology of Iceland, which are published in the history of the expedition; he shall, he says, "ever retain a grateful remembrance of the cheerful and ready exertion he always displayed and the unfailing good humour with which he submitted to the cross accidents which sometimes befell us."

The journal of the excursion tells of a number of interesting experiences, one of which, the rather perilous ascent of the Snaefell Jokul, is really well told by Bright, who contributed several excellent drawings to the illustrations. The journey was not without event; they were nearly shipwrecked on their homeward voyage.

On his return Bright attended at Guy's Hospital in London, where he studied under W. Babington, Currie, Astley Cooper, the two Clines, and Travers. From association with Babington he gained an interest in geology, and, in the fall of 1811, he contributed to the Geological Society a brief statement on the strata in the neighbourhood of Bristol.

Returning to Edinburgh in 1812, he worked under Gregory, at the same time studying geology and natural history under Jameson, and took his degree of M.D. on September 13th, 1813, with a dissertation "De erisipelate contagioso," on the title-page of which is the happily chosen motto: "Foenum habet in cornu, longe fuge. . . ." (Hor., *Sat.*, Lib. 1, Sat. iv.): "He has hay on his horn; give him a wide berth!"

He was a member and president of the Royal Medical Society, a students' organization, to which he contributed a dissertation on "Gangrene"; and of the Speculative Society, where he was brought into association with companions interested in general literature and the law.

After two terms at Peterhouse in Cambridge he returned to London in the fall of 1813, becoming a pupil of Bateman at the Public Dispensary. In the summer of 1814 he passed some months on the continent in Holland, Belgium, and Germany, where, at Berlin, he studied under Horn and Hufeland, "besides profiting by the acquaintance of other eminent men of science," notably Klaproth, Rudolphi, and Heim. Passing through Dresden, he spent the winter of 1814-15 in Vienna, studying with Hildenbrandt, and in the ophthalmological clinics of Rust and Beer. He appears to have had a pleasant acquaintance with many interesting men, especially Jacquin the botanist, Prochaska, and the elder Frank. Napoleon at Elba, the Allies in Congress at Vienna, were dining and dancing and struggling with the problems of peace. Bright gives an interesting account of the social pomp and ceremony associated with the occasion, and a not unentertaining description of some of the leading figures as they passed before him at an evening function. His account of a visit to the little prince at Schoenbrunn is rather touching.

The spring he spent in travel through lower Hungary, arriving in Brussels again two weeks after the battle of Waterloo; here his experiences in the military hospitals are said to have been valuable.

These travels he described in a handsome quarto volume, illustrated with excellent sketches by his own pencil. The book is not written in a sparkling fashion. It cannot be said to betray a lively sense of humour, but the accuracy and catholicity of his observations—geological, botanical, agricultural, economical, ethnological, social, educational, political—his scrupulous objectivity, and the careful detail of his descriptions are very striking. It is clearly the work of a keen observer and a serious student. But the book shows something more. It gives the picture of a young man of six-and-twenty capable of observing and describing the strange customs and life of a people new to him with measure and charity and understanding, seeking out and recognizing that which is good, and never allowing a hasty or an unkind criticism to escape his pen. Such measure and such understanding are not common at six-and-twenty; they are characteristic of Bright throughout his career.

Returning to England he read before the Geological Society a short note on some interesting volcanic formations in Hungary. In 1816 he was admitted licentiate of the Royal College of Physicians, and shortly thereafter was made assistant physician to the London Fever Hospital, where he himself acquired a severe fever of which he nearly died. In 1818 he again visited the continent, spending several months in Germany, the Tyrol, Italy, Switzerland, and France.

In 1820 he was made assistant physician at Guy's, and resigned his position at the Fever Hospital. In 1821 he was elected Fellow of the Royal Society. Soon after obtaining his hospital appointment Bright began to teach, lecturing on botany in its relation to materia medica from 1822 to 1825. In 1823 he gave his first clinical lectures, and, in the following year, he was made full physician to Guy's Hospital, sharing with Cholmeley the course on theory and practice.* For many years afterwards he shared these lectures with Addison.

There is an amusing reference to Bright in a somewhat facetious note in a contemporary medical journal signed Δ.E.Λ. In connexion with the programme of lectures for the term the destructive chronicler says we may ". . . almost fancy ourselves in the *seventeenth century*. . . . In the *Practice* of *Medicine*, *disorders* of the *intellect* will be *reflected* by *Dr. Bright*, of whom it is not too much to say with the poet,

'Natura lo fece, è poi *ruppe la stampa*'!"†

It was a stimulating period in medicine. After long centuries of more or less blind worship of tradition, of authority and of doctrine, during which that which was most certain in medicine was the rather conjectural art of prognosis, physicians were beginning to use and trust

* The centenary celebrated was that of the publication of the first volume of Bright's *Reports of Medical Cases*. Professor Thayer's address, as here printed, was delivered on July 8th. The complete text will be published in the forthcoming Bright Centenary Number of *Guy's Hospital Reports*, where it will be accompanied by a full bibliography.

* How sincerely Bright appreciated this appointment is manifested by his remarks at the anniversary dinner at Guy's Hospital in 1826. "The Chairman next toasted 'The Physicians of Guy's Hospital.' Dr. Bright rose. He said somebody had told him he *must* return thanks. 'Gentlemen,' said the Doctor with great energy, 'I *will* return thanks: to hold the situation of physician to Guy's Hospital is to be placed at the pinnacle of the profession. I am thankful—I am proud of a situation which has produced a Saunders, a Babington, and a Cholmeley. . . .'"

† Nature shaped him, and then *broke the mould*.

their senses, to investigate and explore for themselves. Morgagni had accumulated and placed side by side in massive volumes the brief clinical story and the description of the anatomical changes in the organs in hundreds of instances of mortal disease or injury. Auenbrugger—neglected for fifty years and rediscovered by Corvisart—had demonstrated how, with our fingers, we may determine the outlines and physical characteristics of the contents of the thorax. Bichat, in the few short years of his vigorous activity, had laid the foundations of pathological anatomy; and when Bichat fell, and Bayle, so full of promise, dropped by the way, the genius of Laennec had revealed methods of study which permitted the recognition and fuller comprehension, during life, of many processes which, unrecognized, led to those fatal changes with which they had become familiar in the dead. Freed from the bonds of dogma men were using their senses and their reason in the study of disease.

Bright was fired by the spirit of the times. From the day he entered Guy's Hospital he devoted himself wholeheartedly to the study of morbid phenomena, year after year spending as much as six hours a day at the bedside and in the necropsy room. Occasional notes of cases demonstrated during his visits show how carefully, even at this early period, he observed and noted the recondite; an example is a good description of what obviously was an instance of syringomyelia. For seven years he published little or nothing, but never were seven years better spent. On August 13th, 1826, Laennec died, leaving the legacy of the great work with the immortal descriptions of tuberculosis, of pneumonia, of bronchiectasis, of emphysema, the work which laid the foundations of modern physical diagnosis of diseases of the chest. Bright took up the torch, and, a twelvemonth later, one hundred years ago, rendered a noble account of his stewardship at Guy's in the form of the first beautiful quarto volume of his *Reports of Medical Cases*. This remarkable collection of observations, clinical and anatomical, was made for the most part during the three years of his service as full physician. Bright points out scrupulously that among the comments and inferences there are some for which he "must bear the responsibility alone. Such are the statements and conjectures regarding the dependence of a peculiar class of dropsies on disease and irritation of the kidneys. Such are some observations on the peculiar changes in the structure of the liver; . . . and such are the hints thrown out on the influence of the peculiar state of the mesenteric absorbents on the symptoms of phthisis."

THE RECOGNITION OF BRIGHT'S DISEASE.

He first discusses a group of "Cases illustrative of some of the appearances observable on the examination of diseases terminating in dropsical effusion"—notably ". . . appearances to which I think little attention has hitherto been paid . . . evidences of organic change which occasionally present themselves in the structure of the kidney; and which, whether they are to be considered as the cause of dropsical effusion or as the consequence of some other disease, cannot be unimportant." With these conditions he has "often found the dropsy connected with the secretion of albuminous urine, more or less coagulable on the application of heat. . . . I have never yet examined the body of a patient dying with dropsy attended with coagulable urine, in whom some obvious derangement was not discovered in the kidneys."

The observation that dropsy was sometimes associated with hardening of the kidneys was not new. Aëtius in the fifth century and William Salicet in the thirteenth had mentioned it. In like manner the association of albuminous urine with certain dropsies had been pointed out in 1770 by Cotugno, who quite misinterpreted its significance, and notably by Cruikshank, by Darwin, and later by Wells and by Blackall, each of whom noted the presence of renal disease in individual instances; neither, however, recognizing its full significance.

Such was the situation when Bright began his studies. In three years of hospital experience he had grasped the situation and was able to make the statements which have been quoted. Bright continues cautiously and judiciously:

"Whether the morbid structure, by which my attention was first directed to this subject, is to be considered as having in its incipient state given rise to an alteration in the secreting power, or whether the organic change be the consequence of a long continued morbid action, may admit of doubt; the more probable solution appears to be, that the altered action of the kidney is the result of the various hurtful causes influencing it through the medium of the stomach and the skin, thus deranging the healthy balance of the circulation, or producing a decidedly inflammatory state of the kidney itself:—that when this continues long, the structure of the kidney becomes permanently changed, either in accordance with, and in furtherance of, that morbid action; or by a deposit which is the consequence of the morbid action. . . .

"Where anasarca has come on from exposure to cold, or from some accidental excess, I have in general found the urine to be coagulable by heat. . . .

"During some part of the progress of these cases of anasarca, I have in almost all instances found a great tendency to throw off the red particles of the blood by the kidneys, betrayed by various degrees of haematuria from the simple dingy colour of the urine, which is usually recognized; or the slight brown deposit;—to the completely bloody urine. . . ."

Coagulable urine he has observed not only in these cases of sudden anasarcous swelling but also

"in persons long the subjects of anasarca, recurring again and again, worn out and cachectic in their whole frame and appearance, and usually persons addicted to an irregular life and to the use of spirituous liquors. . . . In all the cases in which I have observed the albuminous urine, it has appeared to me that the kidney has itself acted a more important part, and has been more deranged both functionally and organically than has generally been imagined. In the latter class of cases I have always found the kidney decidedly disorganized. In the former, when very recent, I have found the kidney gorged with blood. And in mixed cases, where the attack was recent, although apparently the foundation has been laid for it in a course of intemperance, I have found the kidney likewise disorganized."

It is nearly twelve years since he first observed the altered structure of the kidney in a patient who had died dropsical; and he still has the slight drawing made at the time. Then follows an excellent description of four-and-twenty instances of dropsy with albuminous urine, seventeen of which came to necropsy and showed renal disease. On the whole these four-and-twenty cases represent the ordinary pictures of acute and chronic renal disease—acute haemorrhagic nephritis, subacute and chronic hydropigenic nephritis or nephrosis, slow chronic nephritis with or without striking general arterial change.

In his summary Bright distinguishes three stages of a disease which he inclines to believe to be progressive. In the first stage the changes consist largely in the cloudiness and mottling of the renal substance; in the second, granulation has begun; in the third, the kidney is sclerotic and contracted with an irregular, nodular surface. It is rather odd, as Rayer points out, that he pays so little attention to acute haemorrhagic nephritis, of which he described at least one clear instance.

From a clinical standpoint Bright notes the frequency of complicating serositis—pleurisy, pericarditis, peritonitis—and comments on the insidious origin of these complications. He tells of the frequency of "apoplexy" (coma) and "epilepsy." In four of the subjects the heart was found to be hypertrophied. He discusses the chemical reports of Bostock, which show that the specific gravity of the urine, varying from 1006 to 1032, is usually lower than normal, and he comments especially on the evidence of diminution in the quantity of urea in the urine and the presence of an urea-like substance in the blood serum in advanced disease.

With regard to treatment he is rather conservative; especially is he sceptical as to the wisdom of the employment of mercury.

The plates are of great beauty, and record that which Bright saw in such fashion as to make the subject clear to readers of that day and this.

Such are the simple and soberly written pages in which Bright laid the foundations of our present knowledge of nephritis. Bright's work was widely discussed at home and abroad, criticized by some who spoke arbitrarily but with authority. The essentials were soon confirmed by the students.

Before going on with the story of his life, let us pass rapidly over his later publications on this subject. In his second volume of *Reports*, published in 1831, he protests (p. x) against a misunderstanding on the part of some of his contemporaries who had assumed that he believed that coagulable urine was observed only in the presence of organic renal disease, and, quoting the careful statements made in his original publication, he ends with the words: "... I am inclined to believe that the functional derangement of the organ may sometimes precede a structural change for a period of many weeks and many months, and that the kidneys of a patient thus affected, who has been cut off early by some disease, may afford very little evidence of diseased structure."

He repeatedly mentions pial (arachnoid) oedema in individuals dead of uraemia, and points out that the same cerebral manifestations, convulsions and coma, which, in suppression of urine, precede death, are met with in diseases which "pervert the qualities of the secretion. . . . That such derangements in the natural secretions and excretions should greatly influence the brain, ceases to be a matter of astonishment, when we find that the blood of those who have albuminous urine is often highly impregnated with urea, while it is deficient in its due proportion of albumen. . . ." "Effusion of blood or serum into the brain is one of the great causes of danger in renal disease."

Experience has confirmed him in taking a rather serious view of chronic albuminuria (p. 449). There are long remissions but frequent relapses. He speaks of the grave prognostic influence of functional or organic disease of the kidney as a complication of acute disease or severe injury. The urine should always be examined before contemplated operations; but one examination is not enough, for sometimes when the disease is advanced, "a simple serous secretion passes with scarcely any albumen; . . . and I early perceived that there was no direct ratio between the degree of disease and the quantity of albumen. . . . Perhaps, in some doubtful cases, an examination of the serum of the blood to ascertain its condition both as regards the presence of urea and the proportion of albumen might be useful."

In his Goulstonian lectures, after discussing the character of the normal urinary secretion, the variations of the specific gravity, and the methods of testing for albumen, especially the use of heat and nitric acid, he refers to the confusion which may be caused by the precipitation of phosphates by heat or of urates in testing with nitric acid. As renal disease goes on, the urine loses the properties which it derives from the presence of urea, while urea becomes demonstrable in the circulating blood. Whatever becomes of the urea in the blood, "it is plain that what appears to be the great office of the kidney—the depuration of the blood—does not take place." Anasarca itself does not always accompany albuminous urine, and it should be remembered that anasarca may occur without albuminous urine. He reviews the arguments which justify his assumption that renal disease is at the root of the clinical symptoms which he has described, and he refers again to the common complications of the disease.

In 1836 he gives a more or less complete summary of his work and tells the story of the disease in a clear and concise manner. He emphasizes the frequency of the condition and discusses with almost legal caution those which he regards as its commoner causes—"scarlatina or some other acute disease"—intemperance, exposure to cold. In his description of the clinical symptoms, among which he notes the fullness and hardness of the pulse, and his discussions, anatomical, physiological, and pathological, he has done about as much as one could do without the microscope and the ophthalmoscope.

Following this is a tabular review of the morbid affections in one hundred patients with albuminous urine in which he treats especially of the complications of renal disease. In the discussion of the cause of the common left ventricular hypertrophy, he asks whether it may be due "to an affection of the minute and capillary circulation so that greater action is necessary to force the blood through the distant subdivisions of the vascular system."

Four years later he again protests against the assumption by some writers that he regards albuminuria as necessarily evidence of a progressive and fatal disease, and relates a series of instances of acute, many of scarlatinal, nephritis. In 1842 Bright published a brief note on some microscopical studies with Toynbee, which led them to believe that the essential element in the disease was the glomerular change.

This ends the contributions that Bright made to the study of renal disease in his own name, although, as we shall see, valuable studies were made later under his guidance and direction. In a little less than ten years he had brought into medicine a remarkably clear clinical and pathological conception of those forms of renal disease which since then have come to be associated with his name. Bright's contribution was not a mere recognition of the association of clinical symptoms with anatomical change; studies had been made not only of the urine but of the blood serum and body fluids, and he had been led into various speculations of a physiological nature. *He was one of the first to introduce methods of quantitative chemical study into routine medical practice.*

One may say, as has been said, that the world was ripe for his discoveries. Perhaps it was. The world is always ripe for men such as Bright.

Other Clinical Studies.

But Bright did much more than discover the relation between albuminuria, dropsy, and renal disease. In his first quarto he took up the study of dropsical effusion connected with disease of the liver, presenting with remarkable clearness and precision a series of cases of hepatic cirrhosis, of which he treats in his later observations on jaundice and on abdominal tumours. He records two cases of cardiac infarction with intraventricular thrombi, one associated with sudden death; their nature he does not recognize. He describes the chronic peritonitis occurring in ascites of long duration, which he believes to be due "to a slow inflammation kept up by the unnatural stimulus of the fluid."

He relates the histories of a series of cases of bronchitis with several necropsies; one wonders whether Laennec would not have regarded two of these as instances of emphysema. Sections are devoted to the termination of pneumonia in suppuration and gangrene, and to phthisis pulmonalis; they are accompanied by beautiful illustrations. "Obstruction of the mesenteric glands by tuberculous disease" he regards as an important cause of emaciation, and he describes and pictures the caseous ("engorged") lacteals making their way to such glands.

There are admirable descriptions and plates of the intestinal lesions in typhoid fever, "changes never suspected to be as general until brought into view by the French physicians."

During the four years between the appearance of the first and second parts of the *Reports*, the greater part of Bright's time appears to have been given to his hospital studies and to his teaching. He played an active part in the regeneration of the Guy's Physical Society, of which he was President for the year 1829-30. The only other publications appear to have been the outlines of his lectures for 1827 and a brief report of an instance of unusually profuse sweating.

In the second quarto of his *Reports*, devoted to diseases of the brain and meninges, Bright records over three hundred cases, for the most part with necropsy, and with comment which is often strikingly acute and discriminating.

He describes and pictures suppurative meningitis and abscesses of the brain secondary to diseases of the middle ear and of the accessory sinuses and to erysipelas. In his account of "acute hydrocephalus" he recognizes its association with tuberculosis in brain, meninges, and elsewhere, but he concludes that "... it would seem that the Hydrocephalus is rather the result of the constitutional tendency than of the tubercles, though these morbid deposits are probably often the exciting cause." How close he came to that which Papavoine was recognizing at the same moment, which Gerhard set forth so clearly two years later! He regards headaches as usually dependent on cerebral congestion.

He describes sclerosis of the medullary substance of the brain in an instance of familial spastic diplegia, and of the cord which was "remarkably firm throughout, almost

like cartilage," in a case of pontine tumour, ascribing the spasticity to these changes. He mentions the frequency of venous thrombosis under the influence of debilitating causes. He calls attention to the "leaden gray colour" of the viscera and later to the pigmentation ("colour of black lead") of the brain in patients who had evidently died of pernicious malaria.

He recounts many instances of Jacksonian epilepsy. But, more than this, *he recognizes the significance of the syndrome* and describes it repeatedly with great clearness.

Among the many recorded instances of haemorrhage, softening and pressure by growths, there are interesting and acute observations on cerebral localization. Later, he reported two instances of tumours situated at or about the cerebellar pontine angle; one apparently cerebellar in origin. Of these he says: "There has been so great a resemblance in the symptoms, as to confirm the feeling which I always entertain and wish to enforce—that in disease, as in other matters, there is a fixed relation, which it is possible we may discover between cause and effect. . . ."

In connexion with two instances of amnestic aphasia with central lesions he observes: "When we review the cases which I have thus thrown together, I trust that, in one point, the connexion between them will be obvious; in as much as they all serve, more or less to establish and keep up our conviction, that the symptoms which arise in cerebral and spinal disease are actually the results and therefore the fair representatives, of the lesions which the different portions of the nervous system have suffered." Defects of speech he has observed are often associated with lesions of the posterior part of the corpus striatum. He recognizes the frequent sclerosis of the arteries at the base of the brain and notes that the common seat of haemorrhage "is undoubtedly a little to the outside of the corpus striatum in either hemisphere, just at that part where many large vessels may be traced coming from the trunks in the Fossa Sylvii, and pervading the brain."

In connexion with the formation of bullae in several cases of paraplegia, it occurs to him that ". . . this connexion between interrupted nervous action and the formation of Bullae, might hereafter be found to throw light on the nature of that most singular disease Herpes Zoster, which, from the peculiar pain with which it is associated, as well as its striking confinement to one side of the body, seems to be connected with some peculiar condition, perhaps the distention, of the sentient nerves."

In a necropsy on a negro he noted that the "skull was thick and heavy in a remarkable degree"—a racial characteristic familiar to those of us who live in the south.

He describes, I believe for the first time in literature, a characteristic instance of that which later was known as Addison's disease with caseated adrenals.

In an instance of diabetes he notes the extreme scirrhous degeneration of the pancreas. He describes an obvious example of what later came to be known as "Adams-Stokes syndrome" with slow pulse and sudden death.

Conservative in therapeutics, he makes an observation in connexion with the treatment of chorea which, in a broader sense, might well be meditated upon by the profession of to-day: "I have occasionally known instances in which arsenic has been successfully administered; but I object to this remedy where others less hazardous will act as well."

The association of rheumatic fever, chorea, and cardiac disease is discussed often and interestingly. In a later article, he refers to pericarditis as an occasional cause of chorea.

Convulsive phenomena are discussed at some length.

The clinical account of tetanus is remarkable; that of hydrophobia is masterly. How striking is the following observation:

> "As regards the symptoms of the confirmed disease they bespeak the highest state of nervous irritability; and affecting, as they do, almost exclusively in the first instance, the functions of respiration and deglutition, and in some degree the circulation, they seem to be immediately dependent upon some morbid action excited in the nerves of organic life, or that particular set of nerves which has been so beautifully illustrated by Mr. Charles Bell as connected with the respiratory apparatus:—and looking to the large proportion of those who are bitten, yet who escape entirely from the disease, it might perhaps arise as a legitimate question, whether it is not one of the conditions necessary to the production of the disease, that some nervous fibre immediately connected with that system should have been wounded."

The second quarto appeared but seven years after Bright had acquired the opportunities offered by wards of his own. The quiet, modest young man who had schooled himself from the beginning to observe, to note, to picture, to record all that which he could grasp of Nature and her works, had been true to his promise; in his medical inquiries he had shown the same keen, sure powers of observation, the same industry, the same mental poise, the same sound, sane judgement that he had manifested in his earliest writings. At the age of 42 he had seen and comprehended and recorded and illustrated his experiences in communications which stand out among the great contributions to medicine.

Medical Education and Clinical Study.

In 1832, following the publication of his second quarto, Bright was promoted from Licentiate to the full Fellowship in the Royal College of Physicians. He had become distinguished among his colleagues and loved by his pupils.

The introduction to his course of lectures at Guy's, published in 1832 at the request of his students, contains passages which can scarcely be passed over. He insists on a "sound classical and mathematical foundation on which to build," on the study of the fundamental sciences as the "corner-stone" of the "edifice," but he warns the student to remember that "the practice of medicine is the most important part of the medical practitioner's education" and urges the necessity of obtaining a "connected knowledge of those diseases which . . . will be the chief objects of his practice, the daily betrayers of his ignorance, or the touch stones of his skill."

In Bright's days also there were those who failed to comprehend until too late, that long-continued, often wearisome, daily experience in clinical observation is vital for the development of the true physician.

"We have all of us senses, it is true," but ". . . without much experience our senses remain most imperfect compared with the exquisite perfection to which they are brought by practice. . . ." On the accuracy of his observation all the deductions of the physician must depend.

"By the eye you will learn much; many diseases have the most distinct physiognomy. The sunk and shrivelled features derived from the long-continued disease of the abdominal viscera; the white and bloated countenance often attendant on changes in functions or structure of the kidneys;—the sallow and puffy cheeks, of the liver" (a surprising picture if taken literally!) "diseased from habitual intemperance;—the squalid and mottled complexion of the cachexia dependent upon the united effects of the mercury and siphilis" (*sic*); "the pallid face of haemorrhage;—the waxen hue of amenorrhoea;—the dingy whiteness of malignant disease;—the vacant lassitude of fever;—the purple cheek of pneumonia;—the bright flush of phthisis;—the contracted features and corrugated brow of tetanus. . . ." We can forgive the liver's "puffy cheeks" in one who could have written "the vacant lassitude of fever." He refers to the perfection to which the sense of touch is elevated in the blind, and says: ". . . to a certain degree we may all acquire such accuracy of touch, and it is our duty to do it." The necessity of continued observation of common clinical phenomena is emphasized, especially regular and repeated visits to those suffering from acute disease.

In the same year Bright described, for the first time in medical literature, the passage of large quantities of neutral fat in the stools of individuals suffering from disease of the head of the pancreas and duodenum, and in his admirable discussions here, and later, he is inclined to regard the phenomenon as due to "obstruction" in the pancreas.

Bright's father-in-law, William Babington, died in 1833, and the first Goulstonian lecture was preceded by a warm tribute to his friend and teacher. The qualities which he praises in his master are curiously like those which his friends discovered in him. In these lectures on the functions and diseases of the abdomen, lectures which are full

of wise observation and comment, he refers briefly but very clearly to an instance of generalized scleroderma.

A little further on he describes the character and significance of peritoneal friction, and the "dough-like sensation" or "hard, knotty feel" in the abdomen, the seat of chronic, proliferative peritonitis, of which malady, two years later, he gives the first clear account. In the course of this article he throws out the suggestion that if, in serous effusions, some method could be devised of inciting inflammatory action short of producing grave adhesions, it might have a curative effect on the effusion.

In 1836, and again in 1839, Bright was a censor of the Royal College of Physicians. In the former year appeared the first volume of *Guy's Hospital Reports*. How active Bright was at this time is indicated by the eight communications from his pen. The first of these, on the treatment of fever, begins with the words: "It is a duty incumbent upon the physician who has ventured at any time to lay before the profession his ideas of disease and its treatment, to review from time to time his published opinions that he may see how far subsequent experience has borne out, or modified, his former impressions: and if he detect any material alteration in his mode of viewing disease, more particularly as respects the practice he has found beneficial, it is right that he should take an opportunity to make it known." This statement gives the opportunity to an anonymous and atrabilious scribe for the assertion that ". . . Dr. Bright had for *many years* abandoned a practice which he had previously recommended for its excellence to the profession, without ever hinting to them until this very day, that that practice was materially calculated to keep up the disease which he originally designed it to lessen."

Whatever Bright's inward reaction to attacks of this sort may have been, he appears to have followed the wise advice of the Rev. Cotton Mather: "*Sile, et funestam dedisti Plagam.*"*

Beside the description of a case of tetanus and studies of cerebral and renal disease already referred to, there follows a well described and little known observation of diaphragmatic hernia and observations on jaundice in which acute yellow atrophy of the liver is described for the first time, and an interesting note on the manner of spread of cancer in the liver. In one note he comments on the frequency with which the swollen liver of passive congestion is evidence of an overlooked cardiac disease. At another point he refers to the frequency of rigors in cholelithiasis.

Bright had become one of the leaders of the profession. His observations on renal disease were the subject of active discussion the world over. In the following year he published the first of a series of articles on abdominal disease, especially tumours, which, later, were collected into a volume and edited under the auspices of the New Sydenham Society by Barlow. These communications are a mine of valuable observation and sane and acute comment. His observations on hydatid cysts, especially those relating to the development of the daughter cysts, are quite original. His discussion of ovarian tumours, of diseases of the spleen, of the kidneys, and of the liver are full of suggestive, interesting, and original observations. He recognizes the frequency of anaemia and the haemorrhagic tendency in connexion with disease of the spleen, and he describes clearly an instance of that which later became known as Hodgkin's disease. He emphasizes the association of cirrhosis of the liver with alcoholic habits.

In 1837 he delivered the Lumleian lectures on disorders of the brain which, apparently, remained unpublished, and in the same year he was made Physician Extraordinary to the Queen.

Some Batts and Owls.

In 1839 appeared the first volume of the *Elements of the Practice of Medicine* by Bright and his associate Thomas Addison; the second volume was never published. Written as a book of reference for students, it is notable for the clearness and conciseness of its excellent clinical pictures, and its accurate anatomical descriptions. The authors, for example, recognize that faecal abscess "in the right iliac region, arises in a large majority of instances from disease set up in the *appendix caeci*." The description of this process, as Hale-White has pointed out, is far in advance of anything of its time; it can scarcely be excelled to-day.

But excellent though the work was, "the *Batts* and the *Owls*" muttered, and to a leading journal of medicine one of the former contributed a dismal and depreciatory review of the volume. The critic who airs his familiarity with, and betrays his incomprehension of, the French literature asserts solemnly that "these 'Elements' rank much, much below mediocrity." The review ends with an attack on the existing method of distributing hospital appointments. "So long as it exists, laziness will be the distinguishing characteristic of those who hold them." The rich who buy their positions will think of naught but striking bargains; the enthusiasm of the poor man "will be crushed, 'ere it can lead to action, and his spirit soured as he looks on the disgraceful inefficiency of

> '. . . those baleful, unclean birds,
> Those lazy owls, who (perched near Fortune's top)
> Sit watchful with their heavy wings
> To cuff down new-fledged virtues that would rise
> To nobler heights, and make the grove harmonious!'"

This is indeed a sad picture!

And there were the "*Owls*" as well as the "*Batts*." In 1839 one Richard Bright of 25, Ely Street, Holborn, M.R.C.S. and "Author of a Popular Treatise on the Diseases of Females; entitled Every Woman's Book; or Female's Physician," published a small octavo volume on the treatment of dropsy. After a somewhat preposterous discussion of "dropsy" as a disease, there follows a rather hazy description of the author's successful treatment of the malady, and a series of illustrative cases. It is obviously the work of a member of the profession whose eye was fixed upon the main chance. At the conclusion, the writer devotes a page to the defence of his medical character and standing, which have been attacked by evil-minded men. He has, it appears, attended lectures for nearly six years at Guy's, and acquired his physician's diploma in 1837. In proof of his good standing, he adduces a series of carefully worded but pleasant testimonials from Sir Astley Cooper, Sir Benjamin Brodie, Addison, Gordon, Bransby Cooper, Robert Keate, and Charles Aston Key. But the author appears to have suffered from doubts and premonitions; all his testimonials are dated 1837, two years before the publication of his book.

The "*Batts*" may annoy, but profit little by their feverish flutterings; the "*Owls*" are wiser. One may fancy that Richard of Holborn may have drawn from the public a fair measure of the balm that he sought. As he may have hoped, his great work has for nearly fifty years been ascribed, in one important medical bibliography at least, to another Richard Bright whose name does not appear in the book.

But the "*Batts*" and the "*Owls*" failed to disturb Bright, who seems to have gone his way unperturbed, notwithstanding what old Mather called "the unregardable allatrations" of his adversaries.*

Retirement from Guy's.

Bright had enjoyed the privilege of his position at Guy's for nearly twenty years. He had made the most of his opportunities, and had observed keenly and recorded accurately and conscientiously that which he had observed. That "chastened power" of generalization, and the "cautious habit of reasoning upon facts" which he had urged upon his students had enabled him greatly to enrich medical literature. In 1843 he was seriously ill, and at the early age of four-and-fifty he retired from the hospital positions of which he had made such good use. But the last use that he made of his service at Guy's was notable. In the spring of 1842 he obtained the permission of the

* Mather, Cotton: *Manuductio ad Ministerium*. Directions for a Candidate of the Ministry, etc., 8vo, Boston, printed for Thomas Hancock and Co., 1726, 142.

* Bright's equanimity appears to have been remarkable. One Holloway, an advertising quack, announced in print that Bright had recommended his treatment, and the *Lancet*, scandalized, demanded a denial. Bright ignored it all, telling his friends that the advertisement was beneath his notice. Bright was probably wise, for at Holloway's elbow stood none other than our old friend Richard of Holborn.

authorities to set aside for a period of six months two clinical wards of 42 beds in all, with an intermediate room for consultations and the recording of histories, and an adjoining and communicating laboratory for the intensive study of renal disease. Bright refers to the experiment as the first made in England "to turn the ample resources of an hospital to the investigation of a particular disease. . . ."

The results of these studies were published in the Hospital *Reports* for 1843 in the names of his chief associates, Barlow and Rees, with a short prefatory note by Bright. The communication, with detailed clinical histories, thorough and accurately recorded physical examinations, careful necropsies, chemical studies of the urine, blood, and body fluids, is a fitting climax to Bright's labours on renal disease, and marks in striking manner the progress which clinical medicine had made in his day. But what is yet more striking and quite characteristic is that these studies, planned, inspired, and directed by Bright, should have been published in the name of his associates who had done the detailed work—that his name should have appeared only in the preface, in which he scrupulously mentions the names of Barlow's interns and Rees's laboratory assistant.

Bright's remaining years were given to his consulting practice, to travel, and to his many artistic interests. His practice, which had been slow in coming, grew to be large, perhaps the largest in London. The honours that he deserved came to him. He was given the Monthyon prize by the Académie des Sciences of Paris. The degree of D.C.L. was conferred on him by Oxford in 1853. As the years passed by he is said to have interrupted his work by long vacations. He was aware for many years before his death that he had a valvular disease of the heart, but he was not interested in his own ills, and the one colleague who is known to have had an opportunity of placing his stethoscope over his sternum was not allowed another chance.

On the night of December 11th, 1858, Bright was seized with melaena associated with great prostration, dyspnoea, and anginoid pains. He failed to rally, and four days later, just after midnight on December 14th, he died.

SOME LAST WORDS.

One cannot look back on this life of unusual achievement without a sense of warm admiration for the man. Happy in his birth and in the surroundings and conditions of his early life, cultivated "by travel and society," an artist, a linguist, a man of scholarly tastes, Bright made full use of his opportunities. Modest, simple, high-minded, mellowed by the broadening and softening influences of the experience of a practising physician, Bright appears to have been in the true sense of the word a gentleman, possessed of the *μεγαλοψυχία* of Aristotle, one who moved among men, high and low, with courtesy and sympathy and charity. His equanimity, the sober restraint of his language, his studied avoidance of intemperate or provocative words or acts, excite one's admiration. He seems to have had a rather unusually winning simplicity and purity of character to which his obituary notices bore touching testimony.

He was a great observer. He was not given to hasty speculation. His mind seemed never to wander from nor to anticipate the phenomena on which his attention was fixed. He examined that which was before him with an objectivity which amounted almost to genius. That which he observed he *saw*, he remembered, he appreciated; often he recorded. To him who knows how to observe, who has that which we call "insight," to him truth reveals much that she hides from the many.

A disinterested lover of truth, Bright appears to have been quite oblivious of questions of priority or of personal fame, going out of his way to give credit to his colleagues and to his associates for work done at his suggestion and under his direction. He lost nothing by his generosity. For generosity fame has a sharp and comprehending eye.

One may easily fancy that the reputation which he finally gained as a consultant was justified.

We have gone a long way since the days of Bright. The great advances in the natural sciences and their increasing application to the problems of medicine have revealed to us many secrets of physiology and pathology, and have immensely broadened our knowledge of the causes and nature of disease and of the means by which it may be avoided, recognized, arrested, or healed. A new and scientific therapy based on a broader conception of the functions of the human body, and on the application of sound biological, physical, and chemical principles, is full of promise for the future. The simple basic methods of physical diagnosis of the day of Laennec and Bright have been greatly augmented. The little clinical laboratory, the child of his fertile mind—with what wonder and delight would Bright have contemplated its offspring to-day!

Science has contributed much to medicine. But after all how far we are from the day when medicine may be practised by rule of thumb! Science has added greatly to our knowledge of pathology, to the art of diagnosis and of therapy. New and fascinating opportunities for research tempt the student at every turn. The increase of our knowledge and of our technical skill has brought it about that men may devote a whole career to the practice of specialties of surprisingly limited boundaries, specialties which have given rise to a terminology bordering sometimes on the ludicrous. The other day I heard a good fellow solemnly descanting on "the science of sinuology"—the "science," if you will, of the accessory sinuses of the nose! The problems and procedures which a physician must consider to-day when consulted by a patient are far more complicated than they were in Bright's time. But all this new and precious technique supplements, it does not supplant, the fundamental procedures of observation and physical examination of which Laennec and Bright made use. And we must not forget that a thorough training in the fundamental art of physical exploration is as vital as ever, that the necessary period of experience spent at the bedside of the patient has not been shortened by a day. Familiarity with the symptoms of disease, an ability to recognize and interpret these symptoms—which may be obtained only by experience—are among the first requisites for him who would be a competent physician. No amount of learning can supply this familiarity, this ability. The intelligent interpretation of symptoms is the first step. He who has not seen the development and progress of disease, he who has not followed the affected subject to his recovery or to his death, he who has not seen his diagnosis confirmed again and again after death, will never attain this familiarity; he will be unfit to practise, much less to teach the art of medicine. The art of diagnosis may not be acquired by the contemplation of radiograms, by the perusal of reports of studies of tissues, body fluids, secreta and excreta, or by the critical consideration of data accumulated by others. As Sergent has well said, one sense may not be substituted for another; the senses are complementary; he who neglects one at the expense of another narrows his horizon.

Laennec and Bright worked with simple tools. Medicine would be poor had we to-day no more. But they worked passing well. They laid foundations on which much has been built; the foundations that they laid were sound.

Between the histories of these two men the contrasts are great. In one respect their lives were similar. Each had a good general and classical education; both were men of wide interests. This is generally true of the greatest figures in medicine. Bright showed early an instinctive interest in the works of Nature, in geology, in botany, in zoology. His was the eye of the naturalist. To most men—indeed to every man with scholarly tastes—life would be unendurable did it not hold for him some engrossing task to accomplish which he is striving in the midst of the routine of existence, some problem he seeks to solve, some investigation he is endeavouring to carry out. With many a man life slips by, and, in the end, it may seem to have been a vain effort, but after all it was that effort, that hope, that carried him on, that brought out the best that was in him.

Without this spirit of inquiry no one can go far. Spurred by it, the superior man may find the school of practice less alluring perhaps at the outset than the opportunity to devote himself uninterruptedly to the study of some concrete scientific problem; but he will find it no less broadening and no less repaying in the end, and quite

as full to-day as it was in the days of Laennec and Bright of opportunities for enduring contributions to science and to humanity.

This spirit Bright carried with him throughout his career. He could not have been called a brilliant man. He made at first no great impression on those about him. But brilliancy is often ephemeral; very often brilliancy spells instability. Bright showed a steadfastness of purpose and an equanimity that are rarer and more precious than mere brilliancy. He was a simple, straightforward, kindly man, who met life with charity and tolerance and serenity; a conscientious, painstaking physician; a patient, careful, modest, scrupulous, time-taking observer. He became a wise and a learned man, and the fruits of his labours assure him a well merited and honourable immortality.

Bright was buried in Kensal Green. There is a tablet dedicated to his memory in St. James's Church in Piccadilly. The inscription ends with these words:

"HE CONTRIBUTED TO MEDICAL SCIENCE MANY DISCOVERIES AND WORKS OF GREAT VALUE AND DIED WHILE IN THE FULL PRACTICE OF HIS PROFESSION AFTER A LIFE OF WARM AFFECTION UNSULLIED PURITY AND GREAT USEFULNESS."

An Address

ON THE

CLINICAL AND THERAPEUTICAL ASPECTS OF INFLUENZA—FROM 1889 TO 1927:

THE VALUE OF SALICIN IN TREATMENT.*

BY

E. B. TURNER, F.R.C.S.,

LONDON.

THE first cases of influenza began to appear in the United Kingdom, after many years of immunity, in 1889. The last extensive outbreaks had been in the years 1827 and 1841. In 1837 that great physician and scholar Sir Thomas Watson, writing on the subject of this disease, saw far into the future when he surmised that it might be caused by what he described as a "portable germ." In 1841 there was a very severe epidemic, and during the fifties and sixties of the last century the term "influenza" was applied to almost every case of catarrh with fever. In 1889 the disease gradually came westward from China, Russia, and other Eastern countries. By some persons it was supposed that the terrible floods in China of that year, when over two hundred thousand people were drowned, may have had something to do with its origin.

In England we heard of influenza, but until the autumn of 1889 no cases came under observation, although it was rampant in France and other European countries. In November of that year I saw my first case—a young man who had come straight from Marseilles. In those days Marseilles was looked upon as the home and place of origin of enteric, typhus, and "other ill defined fevers"; and when I saw him his symptoms simulated those of enteric fever in the early stages, the only typical one missing being the characteristic rash. I treated him as if he had enteric, more especially as he came from Marseilles, and was much surprised when the whole illness cleared up about the tenth day. I saw many such cases afterwards and was able to recognize them as influenza.

In this first epidemic the prominent symptoms were: pain, especially referred to the back of the eyes, the limbs, and the back; there was a "foxy" appearance of the eyes, and the tongue, though not very coated, had somewhat the appearance of a boiled fig, and there was a curious sort of "tang" when you touched the skin, which was almost unmistakable. The temperature and pulse varied in each particular case, but neither ran exceedingly high. Some cases were of a gastric type, accompanied with vomiting. Complications which affected the patients in this outbreak of influenza were principally of a neurotic character, affecting the nervous system in various ways. In other cases bronchitis and bronchopneumonia did most mischief. After convalescence there were many sequelae, chiefly neuroses of various kinds, which sometimes lasted for a good many months, in addition to which frequently some mischief, which may have been latent for a considerable time, took on renewed activity.

The epidemic recurred in 1890, and in each year up till 1895, in which year the last cases I saw came straight from Paris. From that year onwards the attacks were sporadic, the true cases of influenza being in the minority, while almost every attack of catarrh with fever was, either by the medical attendant or the patient himself, styled "influenza"—a blessed word like Mesopotamia—it covered a multitude of ills. This state of affairs continued, the true cases occurring in varying numbers in each year, and the cases which accompanied them and which I have ventured to describe as "pseudo-influenza" being fairly numerous. In 1900 the epidemic was exceedingly widespread, the cases being very numerous, but not of a particularly severe type. In these early epidemics, bacteriology being in its infancy, we have no records of any particular organism being concerned in the production of the disease.

In July, 1918, there was a fairly severe epidemic of true influenza, in character very like those of 1889 and 1890, but of a more severe type. In all probability a different microbic infection was responsible for it. The complications which were then noticed were bronchitis and bronchopneumonia rather than those affecting the nervous system as in the previous epidemics.

This outbreak subsided, but in the following November there was practically a pandemic of extremely severe influenza. Bacteriological investigation then showed that there was a quadruple infection, and the symptoms and the results were very grave and serious. The principal complication was pneumonia, with haemorrhage, and fatal cases were exceedingly numerous. In some persons the gastric type predominated, with a great deal of vomiting and stomach disturbance.

In 1919 there was another epidemic, very much like that of November, 1918. In both these epidemics various sequelae were observed, principally affecting the respiratory system and in a lesser degree the brain and nervous system. From 1919 to 1921 the incidence of the disease was again sporadic, cases appearing in the winter and spring and the number rapidly decreasing in the summer. In 1921 and 1922 there were also fairly extensive epidemics, milder in character, being more like those of 1889 and 1890, one of the principal complications on these occasions being affections of the throat and tonsils, complicated also with bronchitis and bronchopneumonia. In 1923, and each year till 1927, also there were epidemics of the disease in winter and spring.

TREATMENT.

In 1889 and the early part of 1890 the cases which came under my observation were treated on the then accepted lines—by quinine, salines, ammoniated tincture of quinine, and many other drugs and methods, none of which had much effect in checking the progress or alleviating the symptoms of the disease. Out of some 115 cases which I then saw I had about the usual average of bronchitis and pneumonia as complications, the actual number being 21.

In 1877 and 1878, on the first introduction of these drugs to England, I had assisted in many of the experiments made with salicin and the salicylates in the treatment of rheumatism, gout, malaria, and other diseases, and had learned at that time that to ensure any pronounced effect from these drugs large doses were necessary. Many authorities, when influenza first appeared, considered it, in those pre-bacteriological days, to be allied to dengue fever, and it appeared to me that perhaps very large doses of salicin might have the same beneficial effect in its treatment.

Early in 1890 I happened to contract the illness, and I at once tried this treatment on myself. I took 40 grains of salicin in one dose, and continued for twelve hours, taking 20 grains every hour. Salicin is eliminated from the system with extreme rapidity, and to keep a person thoroughly under its influence it is necessary to give large and rapidly repeated doses. At the end of twelve hours

* Presidential address to the Metropolitan Counties Branch, British Medical Association.

my temperature, which was 103.6° at the commencement of the attack, was normal, and in sixteen hours I got up, went out, and did my work; and, seeing a number of cases of influenza that day, I treated them all on the same lines, with the result that in each case I had the same success.

The following are very abbreviated notes of the first cases I treated with salicin, together with a case treated with quinine for comparison.

A. L., aged 30. Typical case of influenza. Temperature 102.5°, pulse 112. Treatment: bed, light food, effervescing solution of quinine sulphate. Third day, bronchitis. Fifth day, broncho-pneumonia. Tenth day, improved; temperature 99.1°, pulse 88. Fifteenth day, convalescent.

C. L., aged 28, and J. L., aged 25, brothers of the above. Five days after commencement of their brother's illness both developed influenza in typical form. Treatment: bed, etc., salicin 40 grains at once and 20 grains every hour for twelve hours. Second day, temperature and pulse normal; convalescent; got up in afternoon. Third day went out of doors.

Emma B., aged 24—my housemaid. Typical attack of influenza. Treated with salicin as above. Second day, convalescent, and wanted to do her work as usual. Third day, working in house.

C. Du C., aged 44. Sharp attack of influenza. Temperature 103.4°, pulse 120. Treatment as above. Second day, temperature and pulse normal. Third day, conducted a wool auction in the city.

E. D., aged 22. Attack of severe influenza with vomiting and gastric disturbance. Temperature 103.6°, pulse 120. Could not retain salicin. Two doses of tincture of opium, 15 minims, were given with an interval of four hours; vomiting ceased, salicin retained. Second day, temperature 100.3°, pulse 88; salicin continued. Third day, temperature and pulse normal. Fourth day, convalescent. This was one of the very few cases in which stomach trouble delayed the action of the remedy. In the three or four similar cases which came under my observation the administration of opium quieted the sickness and allowed the treatment to proceed.

After a short time I gave up administering a first dose of 40 grains, as I found it unnecessary; and 20 grains every hour for twelve hours, and then every two hours for the next twelve, was in practically every case sufficient to put an end to the attack. The late Dr. T. J. Maclagan at this time had exactly the same results from very much the same methods of treatment.

I treated every case which came under my care during the whole of that epidemic in this way; and also all the cases of true influenza which I came across during the succeeding years; and in no single case had I any complications whatever, not one single death, or any sequela of importance.

This treatment was successful in all the epidemics until 1918. In the July epidemic of that year the disease was more stubborn, and occasionally the patient's temperature did not drop to normal and recovery become complete for two and a half or three days, but in all other respects it ran the same course. The following are short notes of two typical cases of severe influenza which occurred in 1918-19.

G. T., aged 27. Severe attack; temperature 103.8°, pulse 120. Given 20 grains of salicin every hour. Second day, better, but still fever (temperature 101.6°) and pain; no bronchitis or pneumonia. Third day, improved, less fever. Fourth day, temperature 99.3°, pulse 84; no complications. Fifth day, temperature and pulse normal. Sixth day, convalescent.

M. B., aged 31. Temperature 102.5°, pulse 108. Had been ill for a day before coming under observation. Salicin treatment as usual, which was commenced about eighteen hours after onset of illness. The case was stubborn, but uneventful, and the patient was convalescent on the seventh day without any complication. The delay in recovery was evidently due to the fact that the administration of salicin was delayed for eighteen hours.

In this severe epidemic, with the quadruple microbic infection, a good many cases ran a course such as in the two instances given. Many, however, when the treatment was commenced at once, recovered in three or four days. In no instance, out of 735 cases, was there any complication or fatal result.

In the very severe epidemics of November, 1918, and March, 1919, when the infection was evidently much more virulent and more varied, the cases resisted treatment for a much longer time, and I had a large number of instances in which the temperature did not drop to normal or the patient become convalescent until the fifth, sixth, or seventh day. I presume that the cause of this was the fact that at least four different kinds of bacteria were found to be present in the sufferers. But in the whole of that bad epidemic I had no complications, no bronchitis, no pneumonia, and not a single death, and I treated over 700 cases.

The epidemics which have occurred in the succeeding years have shown exactly the same results. Occasionally some of the cases have been more stubborn, and have not yielded to treatment so rapidly, but on the whole they have reacted in the same way.

The early administration of salicin in these large doses seems also to reduce materially the chances of infection. In a large hostel, in which there are 120 bed-sitting rooms arranged along corridors, where young women live who are working in different offices all over London during the day—a place which one would consider ideal for the spread of infection broadcast—there were, in the 1918 and 1919 epidemics, 17 cases of infection brought in from the outside. They were all treated with salicin from the first appearance of symptoms, and from no single one of these persons was there any spread of infection among the other inmates of the house. Exactly the same thing happened in a large hostel where between 80 and 100 university students were working for degrees. During the whole of the eight-and-thirty years I have treated influenza in this fashion I have found that, as a rule, no infection has spread from anyone who commenced taking salicin as soon as ever it was possible to give it after the onset of the illness.

I have had a good deal of experience of cases in which influenza has been contracted subsequent to an operation. In 1891, the day after an extensive excision of varicose veins, the patient developed an acute and typical influenza. I treated him in the usual way, and with the usual result. His nurse caught it from him, and with the same treatment her attack ran the same course. I have also seen influenza supervene after two operations for appendicitis, after several excisions of carcinoma, and after various other operations, both major and minor. In every case the same good result was obtained. I have also treated it where other chronic illnesses were complicated by an attack, as well as during the puerperium, when the treatment was just as effectual, and neither the mother nor infant suffered in any way from the large doses. The sooner it is possible to begin the treatment the quicker do the symptoms come to an end.

The accompanying table shows the number of hours after the onset of the first symptoms salicin was first administered, and the day on which the temperature returned to normal, and it will be seen from it that the quicker the treatment was begun the quicker convalescence supervened.

Hours.	Day on which Temperature Returned to Normal.						Total Cases.
	2nd.	3rd.	4th.	5th.	6th.	7th.	
2	11	6	4	3	1	0	25
4	8	13	25	17	7	3	74
6	18	29	38	17	10	5	117
8	3	7	13	9	6	3	38
10	1	4	8	3	1	2	19
12	0	3	4	6	7	4	24
14	1	1	3	7	3	4	19
16	0	0	2	4	6	1	13
18	1	0	0	3	0	2	6
Total ...	43	63	95	69	41	24	335

These 335 cases were taken consecutively from among the large numbers which I treated during the epidemics of 1918 and 1919.

I have found no ill effects of any sort from the administration of these large doses of the drug. The oldest person to whom I gave them was 84 years of age. I have given them in cases of valvular disease of the heart and also in cases of weakness of the heart muscle, and have never found the slightest ill effect whatever. In some few cases a reddish rash has made its appearance, and in a certain number there has been an outbreak of sudamina. The buzzing in the ears which is so characteristic a result of the administration of big doses of the salicylates has generally

been conspicuous by its absence. Some individuals have complained of it, but a little stimulant or ammonia has kept it well within control.

The number of cases I have treated in this way is approximately 3,600 to 3,900. I cannot give the number with absolute accuracy, as for many years I have simply enumerated the cases without any further notes, as all behaved in exactly the same way. I have had reports in each of the epidemics from other practitioners who had tried the same method of treatment in different parts of the country with practically the same success.

In the 1890-91 epidemic the number of cases in the Twycross district near Atherstone in Warwickshire was so excessive that the doctor in attendance could not in any way manage to see them all. Some members of a family who had a place in that part of the world had been treated by me with salicin in London and had quickly recovered. At their request I sent down to Dr. Thomas large supplies of salicin, which he used freely, with the result that in a few days he got and kept the epidemic within bounds, all his cases recovering.

In a large London hospital, during the epidemic in the spring of 1927, one of the resident officers treated a good many cases of influenza which occurred among the patients with large doses of salicin, and they all were convalescent some days before other persons treated on usual lines in the same wards were recovered. Many of these individuals had very recently undergone some operation.

PREVENTION.

In the earlier epidemics people had a great belief in quinine, and especially the ammoniated tincture of quinine, which they swallowed with great freedom. For my own part I found such prophylactics quite useless, and on many occasions I had as many people to treat who had made themselves ill by swallowing quinine, which did not suit them, as I had cases of influenza.

Lately vaccines have been tried. I have used a vaccine, made from the supposed microbe of influenza, which was quite useless. As a matter of fact all the persons on whom I tried it got the illness within a few weeks. The army vaccine of the mixed bacilli is much more effectual. I have tried it on a good many persons with great success, and I have known people go through an epidemic unscathed, whereas persons in their company who had not been vaccinated have caught it.

The essentials of the treatment by salicin are: first of all to give the salicin as soon as ever there is a definite rise of temperature; keep the patient warm in bed, on light simple food; give 20 grains of salicin every hour for the first twelve hours, then 20 grains every two hours for the next twelve hours. When I first gave it I used to administer it in powder, but it is much more conveniently given in cachets. In many cases this is sufficient, but if not the dose of 20 grains may be repeated four, five, six, seven, or eight times a day, as may be necessary, and should there be any relapse repeat the treatment.

For young persons the dose must be reduced. I found that 1 grain for each year of the patient's age, with 1 grain extra "for the pot," was effectual. After the age of 18 years the full 20 grains should be given. If young children can be induced to swallow the drug the results in their cases are just as good as in those of their elders. I believe that young persons have a great tolerance of salicin. One mother, in whose family several cases of various ages occurred, gave a girl aged 12 years the full 20-grain doses instead of her own proper allowance of 13 grains. Her recovery was extremely rapid. But I have kept to the smaller dosage as it is quite successful.

It is quite useless to attempt to treat influenza with small doses of salicin. No effect whatever is produced. The large frequently repeated dose is what is required, and it must be given and pushed with confidence and without fear. I have come across quite an appreciable number of instances in which, following my advice, practitioners have attempted to treat the illness with salicin, but have been afraid of the proper dosage. One particular case comes to my memory in which a very eminent physician, of a past generation, got particulars of the details of the treatment from me and proceeded to treat an even more distinguished surgeon who was suffering from the disease in 1891. He came to me the next day and said it had produced no good effect. On inquiry I found that he had given 10 grains only three times a day! We saw the surgeon that morning, and after taking the proper doses he recovered at once. Therefore, give and push 20-grain doses.

The more acute the case at the commencement and the higher the temperature the more quickly does it yield to this treatment and more quickly does the patient become convalescent. When the fever has dropped, before I let the patient out of bed, I very frequently give 60 drops of sal volatile three or four times a day, and afterwards, should any tonic be required, some strychnine and nitro-hydrochloric acid. Three times I have treated myself in this way, and on each occasion with the same success, in that I was not laid up more than one day in any case.

The fact that in my first cases, treated on ordinary lines, I had about the ordinary average number of complications, and that when I started this somewhat drastic treatment I had very quick recoveries and no complications, has encouraged me to persevere.

Since 1891 I have been asked to see a large number of cases in which the disease has been in evidence for some days. I have found that if no complication be present salicin treatment, though commenced a great deal too late, will almost certainly prevent complications and sequelae. But if bronchitis or pneumonia be present it does not seem to do very much good, though I have thought in some cases it has been of use. In such cases it is the complications rather which require treatment.

I have had the great advantage that in all the cases I have treated with this drug the patients have been able to stay in bed and take care of themselves. I should not hesitate to give salicin even in unfavourable domestic circumstances, but there is no doubt but that well housed, well looked after persons are the best subjects for this treatment.

In a large number of households of my acquaintance a stock of cachets containing 20 grains of salicin is always kept in readiness, so that should a member of the family show symptoms of influenza during an epidemic I am able to give the remedy as soon as ever I see him. This is a tremendous advantage, as the table I have appended shows.

In my experience salicin not only cuts short the duration of the disease but also abolishes the numerous sequelae which were so marked a feature in all the epidemics. I have had hardly a single patient, whom I have treated in the acute stage with salicin, come back to me later complaining of one of the numerous ills which followed an acute attack. This was most marked in the 1889-90-91 epidemics, when for months, and even years in some cases, patients suffered from various neuroses the sequelae of a severe attack. In the later epidemics, though nerve affections were observed, there were, in addition, pulmonary and cardiac mischief of a serious nature arising from the same cause. I have seen practically no such cases.

On several occasions I have been able to watch the behaviour of cases of influenza, the results of the same infection, in a household when I have given some of the inmates salicin and the others have been treated on other lines. In every instance those who took salicin were well, out and about before the others were out of bed. In several instances the latter suffered from severe pulmonary complications, in one instance resulting in death.

I had in 1890-91 many opportunities of estimating the incubation period of the disease, and I found, in cases in which I could be sure of the time when infection took place, that the symptoms of the illness started in from sixteen to nineteen hours. In some few instances twenty-four hours elapsed, but as a rule the temperature began to rise earlier.

Were it possible it would be exceedingly interesting in the next epidemic of influenza to investigate cases treated in this way bacteriologically as well as clinically, to see what effect flooding the system with this drug has on the proliferation and increase of the microbes found present.

I found during the years in which cases of true influenza were rather fewer that a great many cases of catarrh and fever yielded very rapidly to salicin, although it was not necessary to give the big doses quite so often. I have noted carefully the clinical symptoms and appearances of all the cases that I have seen since 1889. There has, in each really bad epidemic, been a distinct difference in the effects produced on those who contracted the disease. The pain which is so characteristic of the complaint has varied in the different epidemics, sometimes being entirely referred to the back of the eyes, and in other cases being felt more in the limbs or in the head, but there has been a line of distinct resemblance running through all these outbreaks. There is evidently an acute infection, which in some of the earlier outbreaks was more inclined to affect the brain and the nerve centres, and in the latter ones the respiratory system.

It appears to me, from clinical observation only, that there is probably some minute filter-passing organism which is in the main responsible for these attacks, and that sometimes, as in the 1918 and 1919 epidemics, its virulence is augmented by the action of those other microbes which were separated and found in those cases.

Salicin seems to have a selective effect on what I may call the influenza infection pure and simple, and is not so rapidly effectual in those cases in which there is a treble or quadruple infection as well.

I have given my experience during thirty-eight years in the treatment of this disease, and it appears to me that it leaves only two alternatives. The first is that with this means of treatment, boldly and wisely pushed, it will be possible in any future epidemic of influenza to eliminate complications, save hundreds of lives, and restore patients to complete health free from fear of sequelae. The second is that from 1889 onwards, in a practice which is not local but embraces the whole of the West End of London, I have never seen a case of true influenza, and that the results which I have put before you were obtained in cases of simple catarrh with fever, which would have recovered under any form of treatment in the same way. This second alternative cannot be accepted.

A Lecture
ON
PULMONARY FIBROSIS IN CHILDREN.*

BY

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THE study of chronic pulmonary disease in childhood resolves itself into a consideration of fibrosis of the lungs in its various forms. Two of these forms are specific infections—namely, tuberculosis and syphilis—and I do not propose to consider these to-day, except in the discussion of the diagnosis of non-specific forms and with regard to the fact that the former, tuberculosis, may be engrafted upon simple fibrosis at any stage of the disease. The fibrotic form of tuberculosis may be looked upon as rare in childhood, while syphilitic fibrosis is probably very rare indeed and can never be diagnosed with any certainty.

This leaves simple fibrosis, which has in the course of years accumulated a wonderful variety of names. It is known as cirrhosis of the lung, a name which merely expresses the consistency to which the lung tissue is reduced; as chronic interstitial pneumonia, a name suggesting that the inflammatory process is progressive, which is not often the case; and as fibroid phthisis, a name which to many minds connects it too definitely with tuberculosis, and is therefore unsatisfactory.

It is non-specific in that we cannot point to any one organism that may be responsible, and indeed simple fibrosis must be looked upon rather as a healing than a disease, and might be disregarded as mere scar tissue if it were not for secondary results which are responsible for symptoms.

By far the commonest cause of fibrotic lung in childhood is an unresolved bronchopneumonia, in many cases complicating whooping-cough or measles. The mortality rate of bronchopneumonia is so high that we have only too many opportunities for studying its morbid histology, and, in a certain type of case especially, the mechanism of early fibrous tissue formation may be demonstrated. This is the type which may be called the "wandering pulmonary infection," in which, during a period lasting from three to six weeks or even more, areas of the lungs are affected in succession, one part resolving or partly resolving while the process spreads to another. Some of the patients recover; others succumb from toxaemia and exhaustion.

Histological examination of active bronchopneumonic tissue raises the question why organization and fibrosis do not more often occur. For here, in marked contrast to the changes in lobar pneumonia, there is extensive damage of lung tissue. The walls of bronchioles and alveoli are infiltrated with both fluid and cells, while the peribronchial and perivascular tissues suffer from a similar exudation. The cells are partly red corpuscles, partly polymorphonuclear leucocytes. Penetrating into all affected parts are swarms of bacteria.

When resolution takes place the whole of this inflammatory exudate has to be cleared away. Tryptic ferments digest the mass, and the liquefied product is removed by absorption. But this is necessarily a much slower process than in lobar pneumonia, and occasionally restoration fails. When this happens, that friendly cell the fibroblast steps in, the inflammatory products are "organized"—that is, infiltrated and pierced by numerous fibrous tissue cells, which, spreading in all directions, form a firm network to weld the spongy mass together, kill the bacteria by cutting off their food supply, and finally, following the example of scar tissue all over the body, contract and become inactive. Meanwhile the alveoli of the affected area, some of which are isolated by occlusion of the terminal bronchiole and others pressed upon by the growth of fibrous tissue, are partly or wholly collapsed.

All this would matter very little if it simply meant putting a part of one lung out of commission. The body can well adapt itself to the possession of one lung, and get from it sufficient aeration of the blood.

Unfortunately, in nearly all cases bronchiectasis supervenes to a greater or less degree. The smaller bronchioles are usually obliterated, but the bronchi, weakened by the primary disease and frequently filled with muco-pus, are easily distended by the action of contracting fibrous tissue. Large cavities are unusual; the cavities are small or medium-sized, and grouped centrally towards the root of the lung. Eventually the pleura is involved, evidently a late event, as pleurisy is rare in bronchopneumonia, and the affected part of the lung becomes closely adherent to the thoracic wall. This anchorage is an additional factor in the stretching of bronchial walls and the formation of bronchiectatic cavities.

Bacteriology.

The bacteriology of bronchopneumonia embraces a large variety of organisms, and presumably any infection may lead eventually to fibrosis, but there is evidence to show that the pure pneumococcal forms are rarely followed by this complication, and as measles, whooping-cough, and influenza commonly precede the condition it must be assumed that a streptococcus causes the original infection in the majority of cases, though Friedländer's bacillus, Pfeiffer's bacillus, and others may be the cause at times. When bronchiectasis is established numerous organisms may cause secondary infection, and some of these are putrefactive.

Pleurisy.

Pleurisy may be a primary cause of pulmonary fibrosis in children. The pleurisies of children are the acute form accompanying lobar pneumonia, tuberculous pleurisy with effusion, and rheumatic pleurisy. In the first condition, if an empyema supervenes, the collapsed lung may become fibrous, especially if the abscess is left undrained too long.

* Notes of a lecture given for the Fellowship of Medicine in January, 1927, at the Royal Free Hospital.

In the second and third it is quite possible that the lung may be invaded by fibrous tissue from thickened and adherent pleura, but it is almost impossible to prove this sequence, and in any case it is but a matter of academic importance.

Lobar Pneumonia.

It is a matter for dispute whether true lobar pneumonia could be followed by fibrosis. The study of the morbid histology of pneumonia makes it seem exceedingly unlikely, as there is little or no damage to the actual lung tissue during the process of exudation, consolidation, and resolution. Exceptionally, however, damage may occur, and from time to time cases are reported in which a cirrhotic lung develops after a pneumonia of a definitely lobar type. It has been suggested that even in these cases the cirrhosis may have been a latent condition preceding the pneumonia, and caused by a previous bronchopneumonia. In connexion with this it is suggestive that out of 41 consecutive cases of lobar pneumonia in my beds at the East London Hospital for Children during the last two years, as many as 18 gave a history of previous bronchopneumonia or whooping-cough.

Symptoms and Signs.

Pneumonic resolution may be so long delayed in debilitated subjects that it is difficult to say exactly when fibrosis begins. A few crepitations persisting at the bases for several weeks or even months after bronchopneumonia must not be diagnosed as due to fibrosis. Usually the patient suffers very little once the condition is fully established, though there has probably been ill health, anaemia, and lassitude during the convalescence from the acute illness. Cough is rarely absent for long, however, and there is some dyspnoea on exertion. He may live a moderately active life with comfort, but is inclined to get attacks of bronchitis from time to time. If and when bronchiectasis has supervened, the symptoms are of a more distressing character. The cough is not frequent because the mucous membrane loses its sensitivity, but is apt to occur on change of position, as when rising or going to bed, is paroxysmal in character, and results in the production of large quantities of muco-pus. Haemoptysis is common, and frequently leads to a diagnosis of tubercle.

The child has a rather characteristic appearance, is generally well nourished, with somewhat prominent eyes, a coarse skin, and bright red cheeks. The brilliant colour gives a false air of robustness, which is dissipated when after exertion the bright red gives place to cyanosis. The finger-tips and toes are clubbed, with smooth shiny skin; this sign is always present, though perhaps not so marked as in congenital heart disease, but it must be remembered that clubbing of the fingers may appear after as short a period as three weeks of bronchopneumonia, and does not necessarily indicate that chronic interstitial changes are taking place.

The physical signs in a well marked case are not difficult to elicit. The changes are generally unilateral, and more often at the left base than elsewhere. On inspection, flattening of the thorax may be seen on the affected side, or even a marked concavity. When a measurement is made a definite shrinking is found to the extent of an inch or more between the two sides. If the case is a long-standing one, even the muscles are wasted, including the muscles of the shoulder girdle, and there is a falling in of the ribs. On palpation it is found that movement is diminished. Vocal fremitus may not be altered, but is usually decreased. The percussion note over the affected area varies considerably: flatness is common, but it is rather a flat tympany than a wooden note, and there may at times be resonance, either due to empty bronchiectatic cavities or to compensatory emphysema of unaffected lung. In any case the note is most unreliable. Air entry is poor, so that the breath sounds are usually considerably diminished, though still retaining their vesicular character; only rarely is bronchial or cavernous breathing heard. Adventitious sounds may be entirely absent if the lung is solid. More often dry crackling crepitations are heard, indicative of partial expansion. Added to these may be bubbling and cracking râles of various kinds when cavities are present; they change from day to day and disappear when the cavities dry up. It is not unusual to hear a few crepitations at the opposite base; that is probably due to similar changes in a mild degree, for although the main damage is unilateral, it is quite possible that a certain amount of fibrosis affects the opposite lung, since bronchopneumonia is generally bilateral. The heart is drawn over towards the affected side. The area of cardiac dullness may not always be easy to define, as it blends with the impairment due to fibrosis, but if the position of the apex beat can be located the diagnosis of shrinkage of lung as against fluid in the pleural cavity is established.

The course of the disease is long, and the expectation of life depends chiefly on the amount of bronchiectasis and whether this is progressive. Care and favourable surroundings make a vast difference. The patient who has good food and adequate clothing, who can spend the winter in a warm climate, and take as much exercise as is good for him, may look forward to many years of comfort. Without these luxuries he is frequently the victim of recurring attacks of bronchitis, which leave him with bigger and freshly infected bronchiectatic cavities. He may be carried off by an acute exacerbation of pulmonary infection, by cerebral abscess, or by lardaceous disease. The connexion of tuberculosis with simple pulmonary fibrosis is an interesting one. The finding of tubercle bacilli in the sputum naturally suggests a tuberculous origin, but it is well known that tuberculosis may be engrafted upon a simple cirrhosis, and indeed finds there a favourable medium for growth.

The tubercle bacillus may be introduced at any time in the course of the disease, and eventually the lung may be riddled with other cavities which are not bronchial in origin. Patients suffering from chronic fibrosis should have a sputum examination done from time to time as a routine, as it is obviously better to know if infection has taken place, even though it may not make much difference in the treatment of the individual.

Diagnosis.

In the early stages fibrosis of the lung is difficult to diagnose. Bronchopneumonia must be given two or three months to clear completely in debilitated subjects, and the diagnosis of permanent damage should not be made on a few basal crepitations alone. The impaired percussion note and weak air entry may suggest fluid, but the note is of a different quality, and the position of the heart gives the clue. Once the chest wall has fallen in the diagnosis is no longer in doubt. One's main difficulty in the early cases is to decide whether tubercle is present or not. Tuberculous infiltration of the lung is generally basal in children, but tends to early caseation rather than fibrotic change. The child wastes, sweats, and has some degree of pyrexia. Sputum may not be coughed out if the child is young, but an examination of the faeces reveals the presence of the tubercle bacillus in a large proportion of positive cases.

The general appearance of the child aids in the diagnosis, but not until either condition is well advanced. The engrafted tubercle, of course, adds considerably to the difficulties in diagnosis. The main differences may be tabulated as follows:

Simple Fibrosis.	*Tuberculosis.*
Well nourished child.	Wasting.
Bright, slightly cyanosed complexion, with coarse skin.	Delicate, flushed soft skin.
No sweating.	Sweating.
Afebrile as a rule.	Evening fever.
Previous history of bronchopneumonia.	Gradual onset.
Sputum variable, but may be copious and offensive.	Not a large amount of sputum.
Sputum contains many and various organisms.	Sputum contains tubercle bacilli.

X Rays.—In the early stages the fibrous tissue infiltration may be seen over the damaged area, the changes in the periphery being as well marked as elsewhere. In tuberculosis, on the other hand, infiltration can be generally seen extending primarily from the roots. When bronchiectasis is established the cavities can be demonstrated, especially after an injection of lipiodol.

Treatment.

This is mainly directed towards keeping the bronchial tree as healthy and free from catarrh as possible. A warm climate is to be preferred, where the patient can be kept

as much as possible in the open air. Where conditions are bad, the disease can best be held in check by preventing accumulation of secretions. The child should be made to hang over the bedside every morning and evening so that the cavities may drain to the greatest advantage. The position alone is enough to start the cough. Since putrefaction of the sputum is one of the most distressing features, vigorous attempts at disinfection should be made. The methods are:

1. By enclosing the patient in a chamber saturated with the vapour of creosote or some similar disinfectant, for increasing periods of time.
2. Inhalation of disinfectants by the use of the Burney Yeo mask.
3. Intratracheal injections of disinfectants—for example, menthol and guaiacol in olive oil.
4. Administration of pulmonary disinfectants—for example, creosote and guaiacol—by the mouth.

Artificial pneumothorax has been suggested and occasionally tried for bronchiectasis, but it is rarely likely to be successful because, even if the attempt is made before fibrous pleural adhesions prevent collapse of the lung, it is obvious that just those parts which are meant to collapse—namely, the dilated bronchi—are least likely to do so, as they are supported by dense, inelastic layers of fibrous tissue.

"POLYCYTHAEMIA HYPERTONICA":

IS POLYCYTHAEMIA A SOMEWHAT FAVOURABLE SIGN IN HIGH BLOOD PRESSURE CASES?

BY

F. PARKES WEBER, M.D., F.R.C.P.

IT has often been noted in typical cases of splenomegalic polycythaemia (Vaquez-Osler disease) that in spite of the extremely high so-called "blood viscosity" (due to the great excess of erythrocytes in the blood) the blood pressure is only slightly if at all above the normal, and the heart is scarcely if at all hypertrophied. Thus, in the first really complete *post-mortem* examination on a typical case[1] (a man, aged 58 years), though the erythrocytes numbered 9 to 11 millions to the cubic millimetre of blood, the heart weighed only 298 grams (10½ oz.). The blood pressure had been moderately above the normal. In many other cases the brachial systolic blood pressure has been only about 150 mm. of mercury. That there is a dilatation of the blood capillaries in such cases has been proved by the observations of Brown and Giffin,[2] and also by the measurements of Hisinger-Jägerskiöld.[3] L. J. Del Baere[4] points out that in polycythaemia it takes less blood to supply sufficient oxygen to the tissues than in anaemia. Therefore, though, owing to high blood viscosity, the blood pressure may be somewhat increased, the heart has less work to do than in anaemia, and consequently cardiac hypertrophy is not rarely absent in polycythaemia, even where the blood pressure is above the normal.

The so-called "polycythaemia hypertonica" without splenomegaly (or "hypertonia polycythaemica") to which F. Gaisböck drew special attention in 1904 and 1905,[5] seems to me to be probably a secondary or symptomatic polycythaemia, connected in some way with the persistent high blood pressure of early stages of granular kidney, or with primary arterial hyperpiesia (using Sir Clifford Allbutt's term) without definite signs of renal disease. In other words, the condition is one of renal or primary arterial high blood pressure with secondary polycythaemia rubra. It is not a very rare syndrome, occurring chiefly in middle-aged persons, and probably more frequently in males; perhaps Hebrews are somewhat more often affected than others. From true splenomegalic polycythaemia or erythraemia (the Vaquez-Osler disease) it is distinguished by the absence of splenomegaly, by the higher blood pressure, and by the absence of such marked facial cyanosis as is seen in old-standing splenomegalic polycythaemia. Moreover, the syndrome may, I believe, represent merely a phase or episode in the course of a case of high blood pressure, the polycythaemia rubra disappearing after a time, though the high blood pressure persists or increases.

Thus in a nervously active Hebrew man, aged 59 years, who was first seen by me in 1920 (when he was 52 years of age),[6] the brachial systolic blood pressure has been generally 180 to 210 mm. Hg. The blood count in June, 1920, gave 8,000,000 erythrocytes and 12,000 white cells to the cubic millimetre of blood, haemoglobin 130 per cent. Since then the blood count has varied considerably, the case tending to become one of arterial hyperpiesia without polycythaemia. He is thin rather than fat, and has a red face, with a little generalized rosacea, without cyanosis. Sometimes there is slight conjunctivitis, probably of rosaceous origin.* His complaints have been chiefly pains, probably of fibrositic nature, in one part or another. At present he has a little sanguineous mucous expectoration; there are no *x*-ray signs of any pulmonary tuberculosis.

His brachial blood pressure is now (June, 1927): systolic 205 mm. Hg, and diastolic 150 mm. Hg. A blood count gives: haemoglobin 90 per cent.; erythrocytes 5,100,000 per c.mm. of blood, white cells 6,200 (polymorphonuclear neutrophils 65 per cent., lymphocytes 27 per cent., monocytes 4 per cent., basophils 1 per cent., eosinophils 3 per cent.). The urine (which was formerly free from albumin) is now of specific gravity 1020, and rather high-coloured; it contains a little albumin but no tube casts; it is free from sugar and does not contain excess of urobilinogen. The heart is somewhat enlarged towards the left.

In spite of considerable business and other worries this patient's general condition has on the whole remained remarkably good, and he looks rather young for his age; but he now almost certainly has an early stage of granular kidney. This brings me to the question of polycythaemia being a somewhat favourable sign in cases of persistent high blood pressure and early granular kidney. I think it must be taken on the whole as of relatively favourable prognostic significance. The polycythaemia, as Del Baere (see above) points out, to some extent relieves the heart from overwork. In fact, I now regard cases of "polycythaemia hypertonica" or "hypertonia polycythaemica" as cases of primary arterial hyperpiesia or of persistent high blood pressure of early stages of granular kidney, in which, owing to a favourable (sometimes familial) constitutional "polycythaemic disposition," the patient's organism has succeeded in developing a secondary blood reaction—namely, the polycythaemia—which to some extent helps to mitigate or delay the harmful effects of persistent high blood pressure.

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DEATH BY ELECTROCUTION.

BY

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WE feel justified in submitting for publication the following details, as cases of electrocution are comparatively rare, and there is a paucity of information concerning them in the books usually possessed by the general practitioner. This was stated at the time to be the first known recorded case of electrocution associated with broadcast reception.

The unfortunate lady was aged 61; she had been treated by one of us (E. E. J.) for some time for a chronic mitral lesion of the heart, but had been able to lead an active business life. She had gone to bed early, about 9.15 p.m., when she was last seen alive by her daughter. At 10 p.m. her daughter returned to wish her good-night, by way of

* With acne rosacea there is sometimes a kind of "rosaceous conjunctivitis," as some eye specialists have noticed. In regard to rosacea-like dermatoses affecting polycythaemic subjects, compare E. Pick and P. Kaznelson, *Derm. Woch.*, 1925, lxxx, p. 159; W. Richter, ibid., 1925, lxxx, p. 1075; J. H. Sequeira, *Proc. Roy. Soc. Med.*, Section of Dermatology, 1917, x, p. 14.

her own communicating room. In this room she was astonished to hear her wireless head-phones emitting a loud noise, accompanied by flashing. Passing through to her mother's room, she found her lying motionless in bed, wearing head-phones, from which was coming a similar noise, and across her face electric sparks were playing, at the points of contact of her steel-rimmed spectacles. She threw the head-phones off, and tried to revive her mother. She was not successful, and sent for medical aid. On examination the mother was found to be dead. In her left hand, close to her side, she was grasping a brass electric standard lamp, of a rather cheap make. She was lying on her back; her appearance was peaceful, and there was no evidence of there having been a struggle. There was a burn of the fourth degree, about the size of a shilling, between the thumb and finger of the left hand. There were similar burns of lesser size on the face and scalp, corresponding to points of contact of spectacles and head-phones. These were over the left malar bone, nasal bones, both eyelids, and over the apex of the frontal bone, just within the scalp margin. This last was of the sixth degree, having, it was found later, charred the outer table of the skull. There was also a burn of the first degree over the left great trochanter. The lenses of the glasses were cracked, and there were discolorations of the metal work of the front head-phone band, and of the spectacles where they were in contact with the skin of the patient. It was stated that a few days before she had received a slight electric shock while holding the same hand-lamp, but had paid no special attention to this.

Nothing was disturbed until the following day, when we met the experts of the Electric Supply Company for the purpose of examining the various circuits concerned. We found a bare wire in the flex of the standard lamp, and this proved to be the cause of the short-circuit in the lighting circuit. Another bare wire was found in the telephone circuit, causing a short-circuit in this through the metal body and head-bands. Owing to the coincidence of these two defects existing in the two separate circuits, she had received the full volume of the lighting current through her body, entering from the hand-lamp and leaving by the earth connexion of the crystal receiving set. The current was stated to be alternating, of 50 cycles per second at 240 volts pressure.

In view of the connexion of the death with the fact that the victim was at the time listening to a wireless programme, we communicated with the British Broadcasting Company, explaining that we proposed to submit an account of the case to a medical journal, and asking for any comments. We received a very courteous reply, with permission to quote therefrom. The opinion expressed was to the effect that the chain of circumstances which brought about the death was so extraordinary that they would be extremely unlikely to recur; that it was the first case, so far as was known, of death associated with broadcast reception; that a similar catastrophe might have occurred had she been holding the defective lamp and touched an earthed conductor, such as a water-tap, or the metal work of a gas stove, or had been in a bath at the time; that it is generally assumed that 100 milliamperes is a fatal current for a human being, though this varies widely for different persons and for different parts of the body through which it passes; that the safest precaution against the recurrence of such an accident is to ensure that the wiring of electric fittings is satisfactory, and carried out by a competent electrician; that it would be impracticable to fit a fuse, as might be suggested, in the earth lead of a receiving set, as it is difficult to find a fuse which would "blow" with certainty at 50 milliamperes, and even if it were, the shock might prove fatal before the fuse had time to heat up and "blow."

Necropsy.

We wished to hold the *post-mortem* examination within twenty-four hours or less of death, but certain obstacles were encountered and the examination was not made until thirty-six hours after; this was unfortunate, as a number of changes which we might have thought at the time to have been due to the passage of electricity proved actually to have occurred after death. The blood was abnormally fluid, of a dark cherry-purple hue. All organs were intensely congested, and abnormally friable. Portions of the brain, liver, lungs, heart muscle, kidneys, left brachial artery, and plexus were submitted to Dr. A. D. Newcomb, pathologist to St. Mary's Hospital, who most kindly gave us a detailed report. The spleen was much enlarged, and the heart muscle, especially of the left ventricle, rather thin. There was evidence of long-standing mitral disease. There were no naked-eye changes in the aorta. We did not notice any changes in the muscles, such as the curious red lines, thought to be due to spasm of vessels, mentioned by Dr. Newcomb as having been recorded in such cases; this may have been due to lack of observation on our part. Microscopically, the brain showed *post-mortem* changes only, and no change was observed in nerves of the brachial plexus. The artery showed a moderate degree of fatty atheroma, and the lung oedema and congestion, with a moderate number of pigmented "heart-failure" cells. The left ventricle displayed a considerable degree of patchy fibrosis, probably from old rheumatic inflammation, with moderate fatty infiltration. The right ventricle showed fatty infiltration only; the liver fatty infiltration with moderate central congestion, and *post-mortem* changes were rather marked. The kidneys were congested, with slight ischaemic fibrosis and marked *post-mortem* change; the spleen was intensely congested. Conclusions: the appearances would all fall into line with other cases where the medulla was apparently incapacitated, and both heart and respiration stopped. The congestion was probably due to the old mitral lesion.

Finally, we desire to offer our best thanks to Dr. Newcomb for his invaluable help towards completing the investigation of this case; to Captain Eckersley, chief engineer of the British Broadcasting Company; and to Mr. Gregory, resident engineer of the North Metropolitan Electric Supply Company at Wembley, for the most useful information supplied towards the same end.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

RUPTURE OF THE HEART.

I was recently asked by the coroner for East Lancashire to make a *post-mortem* examination of the body of a man, aged 72, who had been found dead in a water-closet two days previously.

The cause of death was a rupture of the anterior wall of the left ventricle half an inch in length. The tissue immediately surrounding the rupture was very friable and of a slate colour. The left coronary artery was calcified and blocked by an old clot. The aorta was normal. The gall bladder contained about a dozen stones. The right kidney was hypertrophied and had a small cyst on its anterior surface. The left testis was fibrocystic and almost the size of a Tangerine orange; the right testis was undescended. Both lungs were adherent, by old adhesions, at their apices. The right foot was in an extreme degree of talipes equinovarus.

As regards the predisposing cause of death, this case resembles the majority of those recorded in your issue of May 7th by Drs. Goodall and Weir; the age of the patient, the site of the rupture, and the calcification and blocking of the coronary arteries forming a close parallel. It is fair to assume that the exciting cause may have been straining at stool, and it is curious to note that three of the cases analysed by Drs. Goodall and Weir were found dead in lavatories.

Ramsbottom. C. W. CRAWSHAW, M.B., D.P.H.

EXTENSIVE ADHESION OF THE TONGUE.

ANKYLOGLOSSIA, or adhesion of the tongue to its surroundings, is seldom met with in general practice, and the surgical literature on the subject is so scanty that the following details of two cases seem to be worthy of record.

The first patient, a woman, aged 48, was admitted to hospital for adhesion of the tongue to the lower lip, with consequent difficulty of mastication and speech. A few months previously she had been treated by a *hakim* with large doses of mercurials for eruptions on the body. This caused profuse salivation and swelling of the entire mouth cavity and the tongue. After a period the eruptions disappeared and the swelling subsided, but the tongue was left protruding, with its lower surface firmly attached to the upper margin of the lower lip, as well as to the cheeks. The lower teeth were completely hidden by the tongue, which could not be withdrawn, and the mouth was thus left open with the tongue firmly wedged in between the lips. She was kept at first on liquid food and given complete rest to restore her strength. Later, at an operation under chloroform anaesthesia, the tongue was carefully separated from the lower lip and the cheeks by cutting the adhesions, and the teeth, which were very dirty, were freed. The edges of the divided mucous membrane were brought together by means of fine silk sutures.

Recovery was rapid and uneventful. When discharged the tongue was quite free and the patient could speak with ease; she had no difficulty in masticating and swallowing solid food.

The second patient, a woman aged 55, was admitted to the hospital for partial adhesion of the tongue to the left cheek. Four months before admission she had an attack of fever, and was given some pills, which caused inflammation of the mucous membrane of the mouth. This condition yielded to fomentations, but the tongue became attached to the left cheek. On examination the patient was found to be suffering from mercurial stomatitis; there was dribbling of saliva from the mouth, and nearly the whole margin of the left side of the swollen tongue was adherent to the left cheek, causing difficulty in speech and eating. Sedatives and gargles were administered till the inflammation had completely subsided, after which an operation was performed upon the patient under chloroform anaesthesia. The tongue was freed from the cheek by dividing the adhesions, and the cut ends of the mucous membrane of the tongue were brought together and sutured. The edges of the raw surface of the cheek were similarly dealt with. The sutures were removed after six days, and the patient was discharged three days later, having recovered complete control over her tongue.

Patna, India. H. HYDERALI KHAN, F.R.C.S.Ed.

ACUTE NEPHRITIS DISAPPEARING AFTER SCARLET FEVER.

I THINK the following curious case is worthy of note, and it will be of interest to know if any similar one has been recorded.

In November, 1926, I was called to see a boy, aged 12 years, who had developed nephritis following a chill. During the course of December he had developed oedema of the face and legs, and vomiting, and the urine on boiling was almost solid. There seemed every reason to expect a fatal termination, and uraemia was, of course, probable.

On December 31st an attack of scarlet fever began and appeared to make the prognosis still worse. The result, however, was quite extraordinary; by January 10th all oedema had gone, the urine was free from albumin and when centrifugalized yielded no casts. The boy has since remained perfectly well and is now at school.

On my invitation Dr. F. H. Morison, county medical officer, saw the boy on February 7th, and agreed that there was then no sign of nephritis.

Langwathby, Carlisle. H. WALTER WARD.

PREGNANCY AND GLYCOSURIA.

PREGNANCY sometimes occurs in cases of diabetes mellitus and has a very unfavourable influence on the course of the disease, and the dangers of the confinement are greatly increased. More frequently a non-diabetic glycosuria occurs during pregnancy; it usually clears up after the confinement, but sometimes persists during lactation. The cause of this appearance of sugar in the urine has not been satisfactorily explained, and it is possible that the following case may throw some light on the subject.

A primipara, aged 25, came to me on November 27th, 1926, to engage me for her confinement, which was expected at the end of February. Examination of the urine showed no signs of sugar or albumin. She was seen again on January 3rd, 1927, when sugar was present. Fehling's solution was the reagent used. It was not possible to have the blood sugar estimated. Examination of the mouth showed a carious premolar and slight pyorrhoea. No other septic focus was discovered. The patient seemed to be quite healthy, and she stated that she "never felt better in her life."

Believing that this glycosuria is really pathological I advised the "ladder diet" of St. Bartholomew's Hospital. The sugar ceased until she came to the stage when 4 oz. of milk is allowed. Milk was then stopped and she proceeded on the scale without any return of the glycosuria; 2 oz. of bread was then allowed, and this was followed by oatmeal porridge and potatoes, and she still remained sugar-free; 1 oz. of milk was then tried, and the sugar appeared in the urine once more.

She was confined on February 20th. Labour was normal and the puerperium was uneventful. She has remained free from sugar since, although she has returned to her usual diet, which contains plenty of milk.

In this case the glycosuria seemed to be due to the milk. In view of the effect of milk in eclampsia and the other toxaemias of pregnancy, I would suggest that the glycosuria in this case was due to a mild toxaemia. Although the patient said that she felt very well, yet she knew when sugar was present before the urine was examined. Questioned as to how she knew this, she replied that she had a "feeling of sweetness in the mouth," heartburn, and chilblains, and that all these disappeared when the sugar was absent.

Lisburn, co. Antrim. T. A. KEAN, M.B.

Reviews.

THE LISTER MEMORIAL VOLUME, EDINBURGH.

IT was a happy thought of the executive in Edinburgh to substitute for the usual book of the town in which the Annual Meeting of the British Medical Association takes place a Lister centenary volume,[1] to serve also as a memorial of the Lister celebration next week in Edinburgh, the beautiful city in which he was happily married and in which some of the best years of his life were spent. It has been prepared under the editorship of Dr. LOGAN TURNER with the help of former pupils.

Lister was a bold and skilful surgeon, but he was much more. It was the physiologist and pathologist in him, backed by inherited persistency and thoroughness and singleness of purpose, that led to the invention of antiseptic surgery.

The importance of his physiological work is well insisted upon by Sir Edward Sharpey-Schafer, from whose contribution, "Lister as a Physiologist," we may realize the skill of his methods, the accuracy of his observations, and the acuteness of his conclusions, although, being but human, he did, though rarely, err. That active veteran of the Glasgow days Sir George Beatson contributes a biographical sketch with illustrations of Lister's birthplace in Essex and his houses in Charlotte Square, Edinburgh, and at Walmer, which conveys in small space a good idea of the life of its subject. In a section of "Ipsissima verba" is appropriately reprinted the address delivered in opening the Surgical Section of the Association at its penultimate meeting in Edinburgh fifty-two years ago on "The effect of the antiseptic treatment upon the general salubrity of surgical hospitals," in which he described not only the advance achieved in his own hospital but also the striking improvements in results which he had seen in a recent visit to hospitals on the Continent. He was then triumphantly able to claim that in his wards, despite "two or three children in one bed" and "mattresses on the floor" as well as the crowding together of bedsteads and other drawbacks, sepsis was practically unknown. Of these long-unwashed wards he said, "Aesthetically they were dirty, though surgically clean."

The chapter headed "Obiter dicta" consists of sayings, which show their author's mind clearly, and amongst other things go far to explain the failure of many of Lister's contemporaries in their well meant but futile attempts at antiseptic surgery. These men, many of great ability, generally failed to grasp the importance of attention to details and could not realize that one small breach of the defensive line was capable of admitting the whole host of septic foes. Professor John Fraser, who is one of the successors of Lister in the chair of clinical surgery, makes in "The influence of Lister's work on surgery" an eloquent and not needless appeal for an ideal in surgical work, which, as he says, is in some danger of being lost sight of in the circumstances of to-day.

Perhaps the most attractive part of this book consists of the collection of essays under the title of "Reminiscences of the chief," in which a number of Lister's dressers and house-surgeons have contributed notes, not forgetting recollections of that great character Nurse Janet Porter, who served for forty-seven years in the Royal Infirmary of Edinburgh, and whose disapproval of a primary disarticulation at the hip-joint was thus expressed: "Leave him alane, my laddie; Mr. Syme wouldna' hae touched him."

A small selection of interesting letters from and to Lister, together with a facsimile of one of his, and a chapter on "Lister's fellow residents, summer 1854," conclude the volume. The group of young men with whom he served in the Royal Infirmary was a most remarkable one, for of his six comrades, all saw war service, one died in his first year abroad, and of the other five all attained public honours, for the details of which the reader is referred to this book, on the matter and manner of which we heartily congratulate Dr. Logan Turner.

[1] *Joseph, Baron Lister.* Centenary Volume, 1827-1927. Edited by A. Logan Turner, M.D., LL.D.Edin. Edinburgh and London: Oliver and Boyd. 1927. (7¼ × 9½, pp. xv + 182; 10 plates. 10s. 6d. net.)

KRAEPELIN'S PSYCHIATRY.

WE have received a copy of the ninth edition of the second volume of the late Professor KRAEPELIN'S famous *Psychiatrie*.[2] This monumental textbook is to consist of four volumes: the first is devoted to general psychiatry, the remainder to clinical psychiatry. The volume before us, on clinical psychiatry, is the only one of the ninth edition yet published. It is entirely the work of Kraepelin himself, Dr. J. LANGE, whose name is now associated with that of Kraepelin in the latest edition, having undertaken the task of revision only.

In his preface the author said that it was impossible for one individual to give an approximately complete statement of existing knowledge in the domain of psychiatry. In spite of this he undertook this work with the natural wish to give an account of the experience he had gained during the last quarter of his fifty years' practice as a psychiatrist. Furthermore, he felt it imperative to give a new form to the first part of this volume on account of the arrears which had accumulated upon him. He pointed out that there have been during the last few years numerous additions to psychiatric knowledge, citing as an instance the increased insight gained from the study of lethargic encephalitis into the association of nervous disease with psychical disturbances. He referred also to Wilson's disease as providing increased knowledge of the development of paralysis. In addition, he had a number of new facts in regard to hereditary syphilis and cerebral disease, the endocrine forms of mental disturbance, and the oligophrenias (imbecilities), which had to be included in this volume in order to bring it up to date. The result affords striking evidence of the tireless industry and zeal of its author, for though it contains over fourteen hundred pages, it only deals with a small proportion of the many syndromes of psychiatry. It is intended to contain in real essentials a description of all those psychological disturbances which, by reason of external and internal infections, injuries and toxins are manifested.

The following is a brief summary of the contents of this volume. After an account of psychoses associated with cerebral injuries, consideration is given to those occurring in disorders of the brain—meningitis, lethargic encephalitis, cerebral abscess, sunstroke, cerebral tumour, and organic nervous disease. In the next section psychoses associated with endogenous and exogenous poisons and toxins are considered, and a fourth section deals with acute and chronic infection psychoses. Mental disorders resulting from both hereditary and acquired syphilis are described in the fifth section, and in the sixth section an exhaustive account is given of general paralysis. An excellent discussion of modern methods of treating this disease is provided, and special reference is made to malarial therapy. The concluding section is concerned with psychoses associated with endocrine disturbances.

Kraepelin explains that he has here been compelled to confine himself to knowledge personally won at the bedside without advancing closer argument. It is certainly as a great clinical psychiatrist that he will be remembered; he takes a very modest view of the value of his own work and achievements, but claims that all his authorized examples of clinical types were the result of personal observation, and were not subjected to a one-sided winnowing, and that as he depicts them in his book so his patients really thought and behaved. He does not neglect to warn us against the mistake of expecting clear examples or textbook cases, and observes that if patients do not always behave in scholastic fashion and so increase for us the burden of divergent phenomena, nevertheless we must be satisfied therewith.

Kraepelin has been criticized for the supposed absence of a dynamic quality in his psychiatry. We do not feel that this criticism is by any means justified. In the first place, his clinical pictures are always endowed with life, so that we can almost see the patient before our eyes; in the second, he recognized that psychoses are subject to an infinite number of transformations, and also that a given morbid agent manifests itself clinically in a variety of ways. This is surely a dynamic psychiatry; for unceasing change and transformation, together with a variability of reaction in different organisms to the same stimulus, are the essential marks of life.

[2] *Psychiatrie.* By E. Kraepelin and J. Lange. Ninth edition. Vol. II: Clinical Psychiatry, Part I. Leipzig: J. A. Barth. 1927. (Med. 8vo, pp. xii + 1117; 290 figures, 2 plates. M.69.)

LOCAL IMMUNIZATION.

Local Immunization[3] is the title of an English translation of the book by BESREDKA in which he described in simple terms the work on "cuti-infection, cuti-vaccination, and cuti-immunity," especially in relation to anthrax, the pyogenic cocci, dysentery, and typhoid; on this he has been engaged since 1920. The first chapter, dealing with anthrax, illustrates the methods he adopted. He quotes appropriate experiments to show that in laboratory animals virulent *B. anthracis* introduced into the body by any route, provided the skin is protected, is destroyed without causing infection, or any reaction on the part of the animal. Even "the entire covering of the animal—whether it be cutaneous or mucous—is refractory to the anthrax bacillus, as long as these tissues remain intact." He believes, however, that "the receptivity of the guinea-pig to anthrax resides principally, if not entirely, in the skin," and that in order to produce fatal infection it is necessary to injure it. He succeeded in solidly protecting these animals against experimental infection by applying vaccine to the shaved skin or by intracutaneous inoculation, and later the method was very successfully employed in horses. Our readers have already been made acquainted with these experiments and with the conclusions Besredka draws from them, but not, of course, so fully as in this volume.

In other chapters he deals similarly with staphylococcal and streptococcal infections, dysentery, and typhoid fever, and devotes the last chapter to a short review of the theories of immunity, indicating the modifications suggested by his work.

"The object in publishing this small volume," we are told, "is to present to those interested in the problem of immunity a point of view which is different from the one that has been followed up to the present." The book is intended to stimulate work and discussion, and should fulfil its purpose.

[3] *Local Immunization.* By Professor A. Besredka. Edited and translated by Dr. Harry Plotz. London: Baillière, Tindall and Cox. 1927. (Demy 8vo, pp. xi + 181. 10s. net.)

LIGHT TREATMENT.

DR. GUILLAUME of Paris has contributed a clearly written and thoughtful book[4] to the literature of light treatment. He has himself carried out experiments which seem to show that infra-red radiations, while inducing erythema by their heating effect and shortening the latent period of erythema production by ultra-violet rays, make this erythema less persistent. M. Guillaume suggests that the vaso-dilatation produced by heat enables the toxic effects which follow the action of the ultra-violet rays on the epidermis to be carried away more quickly. Vaso-constriction brought about by cold increases, he says, the damaging action of the ultra-violet rays. There is no physical antagonism, but a physiological one between these two sets of rays. On the other hand, A. Eidinow and L. Hill have found the erythema resulting from a short exposure to a mercury vapour lamp to be more marked when induced in warm than in cooled skin, and have shown that the temperature coefficient for the killing of infusoria by ultra-violet rays is about 1.5 per 10° C. M. Guillaume justly concludes that sensitization of living tissues by dyes, etc., is due to the sensitizer combining with the living substance and causing this to absorb and transform radiations—for example, visible ones, to which normally it is transparent. Such sensitization can be used to intensify the local action of light in the treatment of lupus and ringworm, but this interesting aspect of the subject is not dealt with.

In dealing with fluorescence the author points out that the luminosity of a cat's eyes in dim light is due to

[4] *Les Radiations Lumineuses en Physiologie et en Thérapeutique.* Par A. C. Guillaume. Paris: Masson et Cie. 1927. (5½ × 8½, pp. 515; 17 figures. 40 fr. sans majoration.)

fluorescence of the anterior parts. It ceases in total darkness. Fluorescence is one method of transformation of energy when rays are absorbed by living substance. There is no evidence of its being of any particular importance in the case of the skin. An adequate account is given of the use of Wood's glass, which transmits the longer ultra-violet rays only; with this glass as a screen the mercury vapour lamp allows the detection of skin lesions, invisible writing, forgeries, etc. The author rightly concludes that pigment in the skin protects particularly from the visible rays, and that ultra-violet rays are kept out mainly by thickening of the horny layer of the epidermis. This is a fact which requires to be borne in mind in treatment by light. For the skin to remain sensitive the horny layer must be kept thin. It is no good giving light treatment during the stage of desquamation, and in treatment of such a disease as psoriasis the scaly surface layer must be removed before the ultra-violet rays can penetrate and act on the diseased tissue. The very small degree of penetration of the biologically active ultra-violet rays must be remembered.

NOTES ON BOOKS.

MOST practitioners must, at one time or another, have longed for a dictionary of symptoms as an aid in elucidating, by the process of exclusion, a difficult case. Such a book was written for surgery a good many years ago, but it has long been out of date and out of print. The difficulty of compiling such a book is made apparent by a glance at the volume on *Symptom Diagnosis, Regional and General*,[5] by Drs. WILFRED M. BARTON and WALLACE M. YATER of Washington. The enumeration of the conditions in which a particular symptom may occur, coupled with a very brief account of the characteristics and chief signs in each case, occupies nearly 850 pages. The collection of information in all branches of medicine and surgery must have been a herculean labour, and the book moves us to admiration of the thoroughness and attention to detail shown. Thus in the regional section it is possible to turn to "upper extremity, wrist, swelling of," and to find a brief description of seventeen possible ordinary causes of swelling of, or about, the wrist, from Colles's fracture to myeloid sarcoma and Madelung's deformity; this is followed by a list of twelve less common causes. In the general section a reference to "joints, pain in multiple," discloses nine ordinary causes; while four-and-twenty less common causes remind the practitioner to exclude such possibilities as Still's disease, caisson disease, haemophilia, scurvy, lead poisoning, and purpura haemorrhagica. The authors illustrate the use of their book in the case of a patient with a drooping eyelid. After taking the history and sending the patient into the dressing room to prepare for examination, the physician turns up the heading, "eyelids: ptosis," and can then examine the patient with a clear idea of all the causes and kinds of ptosis.

Hygiène Infantile,[6] by Professor BRUNON, is a study of the life of the child from birth to adolescence, written from the standpoint of the hygienist and eugenist. The book, which is written in simple, precise language, is interesting throughout. In the discussion of the uses of the sun, and baths, historical digressions prove how far the nineteenth century had lapsed from the wisdom of the ancients. As the book is written primarily for French parents the author does not scruple to reiterate his main theme of "more sun, more air, more water." He makes a few flattering references to the upbringing of English children, whom he supposes, in general, to have a more liberal allowance of these elements than his young compatriots. He advocates country life and a vegetarian diet.

RUDDIMAN'S *Pharmacy*[7] is a book prepared for American pharmacists, but whether for those who have had some training and experience or those who have had none we cannot feel quite sure; the text presupposes ignorance at one time and knowledge at another, with an irritating frequency of change. In most countries a pharmacist is expected to have had a scientific training in physics and chemistry beyond what the author of this book has written of those sciences in their relation to the matter treated; for such, the chemistry and physics might accordingly have been omitted, but for others the scientific treatment should have been amplified. Much of the book is occupied with comments applicable only to preparations and formulae of the United States *Pharmacopoeia* and *National Formulary*. Those comments are of heterogeneous kind, often consisting of the oddest scraps, yet they include a good deal of sound precept and useful information. It is evident that the author is fully acquainted with pharmaceutical practice and theory, and his book might serve as a skeleton for the production of a well ordered volume. The criticism we make is that the information given is too fragmentary and disconnected to be educational.

The *Acta Medica Scandinavica*[8] is a periodical publication devoted to internal medicine, written in English, French, or German according to the wishes of each author. One of the numbers (written in English) is a detailed study of pneumonia experimentally produced in rabbits by the pneumococcus. Dr. LEEGAARD describes the disease in these animals, and then considers the heart's minute-volume and stroke-volume during the disease, and the pressure diagram in the left ventricle, aorta, and carotid under similar conditions. He finds that the quantity of blood passing through the heart—especially in diffused pneumonia—is increased considerably, and that the respiratory consumption of oxygen is similarly increased; both of these are largely due to the processes in the lungs. The monograph is a valuable addition to this well known series.

Dr. MEHRAN K. THOMSON, who is professor of philosophy and psychology in Baker University, has written a volume on *The Springs of Human Action*[9] which, as its subtitle indicates, is a psychological study of the sources, mechanisms, and principles of motivation in human behaviour. The book is intended to appeal "not only to students of the social sciences, but also to parents, teachers, ministers, lawyers, physicians, public speakers, salesmen—all who have a natural interest in understanding and influencing human behaviour—and to the general reader who is interested in the problem of why we behave as we do." It is evident that the author has expended much time and trouble in the preparation of this volume; his treatment of his subject is too detailed and diffuse, however, to give anything but a vague impression of fundamental psychological principles. The book largely consists of a literary analysis of human attitudes and interests. Thus the "sour grapes" attitude is divided up into eleven different forms—making light of the situation, suggesting that others are in a worse plight, withdrawing from the contest as "too proud to fight," and so on. The volume is fully documented.

The forty-fifth annual issue of the *Empire Municipal Directory and Year Book*[10] maintains the high level we have been led to expect from what is in effect a standard work of reference both for the officers of local authorities and the wider public interested in any of the various departments of municipal activity throughout the Empire. Due attention is given to public health and cognate subjects in the concise review of progress during the past twelve months. Particularly useful features are the list of statutes and departmental orders issued during the year, and the directory of municipal engineering, public health and scientific societies. The comprehensive Directory of Local Authorities and their officials throughout the Empire is supplemented by the names of the chief public officers of a selected list of foreign cities.

[5] *Symptom Diagnosis, Regional and General.* By Wilfred M. Barton, A.M., M.D., F.A.C.P., and Wallace M. Yater, A.B., M.D. New York and London: D. Appleton and Co. 1927. (Roy. 8vo, pp. viii + 851. 42s. net.)

[6] *Hygiène Infantile.* Par Raoul Brunon, Professeur honoraire de Clinique médicale à l'École de Médecine de Rouen. Troisième édition. Paris: Norbert Maloine. 1927. (3½ × 6¼, pp. 280. 12 fr.)

[7] *Pharmacy.* By Edsell A. Ruddiman, Pharm.M., M.D. Second edition, rewritten and enlarged. New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd. 1926. (Extra post 8vo, pp. viii + 379; 70 figures. 18s. 6d. net.)

[8] *Researches Regarding the Hæmodynamics in Rabbits in Normal Condition and during Experimental Pneumonia.* By Fredrik Leegaard. *Acta Medica Scandinavica*, Supplementum XVII. Oslo: Kirstes Boktrykkeri. 1925. (Med. 8vo, pp. viii + 333; 13 figures, 12 plates.)

[9] *The Springs of Human Action.* By M. K. Thomson, Ph.D. New York and London: D. Appleton and Co. (5¼ × 8¼, pp. xvi + 501. 10s. 6d. net.)

[10] *The Empire Municipal Directory and Year Book for 1927-28.* Forty-fifth year. London: Municipal Engineering and Sanitary Record. 1927. (7 × 9½, pp. 318. 10s. 6d. net.)

PREPARATIONS AND APPLIANCES.

Mercury in Hydnocarpus Oil.

AVENYL is a preparation of mercury dissolved in hydnocarpus oil, prepared by Messrs. Burroughs Wellcome and Co. for the treatment of leprosy combined with syphilis. This complication is not uncommon in lepers, and such cases are difficult to treat with the organic arsenicals because these drugs often aggravate the leprosy. Avenyl consists of a 0.25 per cent. solution of 2-myristoxymercuri-3-hydroxybenzaldehyde, and the dose is 4 c.cm. gradually rising to 10 c.cm. The drug can be administered subcutaneously. Muir (*Indian Journ. of Med. Research*, 14, 291, 1926), who treated thirty cases of syphilo-leprous infection with avenyl, produced a negative Wassermann reaction in sixteen.

Scarlet Fever Antitoxin.

The Wellcome brand Schultz-Charlton test solution is a preparation of scarlet fever antitoxins from the horse. Intradermic injection of the solution produces blanching of the skin in scarlet fever. This Schultz-Charlton reaction is sometimes a valuable aid in the diagnosis of doubtful cases of scarlet fever. The solution is issued by Messrs. Burroughs Wellcome and Co. in phials containing 1 c.cm. and 5 c.cm.

NATIONAL CONFERENCE ON MATERNITY AND INFANT WELFARE.

THE annual conference of the National Association for the Prevention of Infant Mortality was held last week in the Great Hall of the British Medical Association's House, Tavistock Square. The President was Mr. NEVILLE CHAMBERLAIN, Minister of Health, who, in opening the conference, appealed for support for the Nursing Homes Registration Bill and the Mental Deficiency Bill, which he hoped would be passed this session. Maternal mortality, Mr. Chamberlain said, continued to give cause for anxiety, but he hoped for a marked improvement in the figures eventually as a result of the new regulations issued last year with regard to the notification of puerperal fever. On the subject of artificial light treatment he confessed himself alarmed at its popularity, especially as he heard that it was so easy to administer to oneself. There was risk in the improper application of light treatment, and its indiscriminate use was to be deprecated. He had thought it necessary to insist that where the treatment was employed there should be responsible for it a medical officer specially trained and an experienced nurse.

The first subject of debate at the conference was wet nursing, as to which Dr. CATHERINE CHISHOLM gave the experience of the Manchester Babies' Hospital, where the practice of having two or three nursing mothers constantly in residence has been followed since 1922, with good results. Dr. RONALD CARTER, of St. Mary Abbott's Hospital, Kensington, also spoke in favour of this organized attempt to procure breast milk in sufficient quantity. He had seen no ill effects from the use of the milk; the only disappointment was in some cases that the supply had given out, and there could be no question of the value of breast milk in cases where a child was rapidly going downhill. Where cow's milk in any form, even peptonized, could not be tolerated, the effect of giving breast milk was almost miraculous.

Another subject discussed on the opening day was the practical teaching of mothercraft. Dr. MABEL G. BRODIE urged that in every type of centre the work should be so arranged that definite instruction in mothercraft in the form of talks and demonstrations was provided as a part of each session.

On the second day the provision of efficient sick nursing in the homes for children under school age was discussed by Dr. S. G. MOORE (medical officer of health for Huddersfield), who said that many young lives had been lost owing to the lack of continuous skilled nursing night and day, Dr. RUBY BELL, who described the provision in Liverpool for home nursing of certain classes of young children, and Dr. J. E. SPENCE (medical officer of health for Eccles), who said that in his borough the combination of home nursing with other duties of health visitors had worked very satisfactorily during the past four years. In a recent epidemic of measles the low mortality rate of 2 per 1,000 cases was undoubtedly due to a great extent to the assistance the nurses were able to give in cases in which bronchopneumonia was a complication.

The incidence of venereal diseases in ante-natal and post-natal clinics was the subject of a paper by Professor F. J. BROWNE (director of the Obstetrical Unit, University College Hospital), who drew attention to the points to be borne in mind in diagnosing syphilis in pregnancy, more especially the clinical and obstetric history, the Wassermann reaction, and, what was sometimes overlooked, the examination of the product of conception—placenta, cord, and foetus—in which evidence might be found. In treatment four main principles should be borne in mind. Treatment should commence as early in pregnancy as possible, or, better still, a full curative course should be completed before pregnancy was allowed. The patient should be treated by arsenical compounds in every pregnancy, no matter whether she seemed to be cured or not. Treatment might be continued with perfect safety up to the time of confinement. Arsenic and mercury or bismuth should not be given together on account of their tendency to damage the kidney. In this respect bismuth and mercury were more dangerous than arsenic. If there was no albuminuria, however, they might be given alternately. Should there be albuminuria it might be necessary to stop all treatment except by potassium iodide for as long as the albuminuria lasted. In some rare cases the albuminuria might be due to syphilis, and then arsenical treatment, carefully watched, might be tried. Professor Browne also spoke of gonorrhoea in pregnancy, stating that it did not often give rise to acute symptoms such as cystitis. If it did the diagnosis was fairly obvious, and treatment in the acute stages was almost standardized. Arthritis was the most common complication in the speaker's experience, and its treatment often demanded much circumspection. Professor Browne dealt at length with the more common subacute or chronic infection and the methods of diagnosis and treatment, pointing out that the multiplicity of remedies available in gonorrhoea was evidence that none was very efficient. The truth was that almost the weakest antiseptic would kill the gonococcus if it could be brought into contact, but the difficulty was that the organisms lived entrenched in the periurethral or cervical glands beyond the reach of most local applications.

A session was afforded to the subject of light treatment, at which Dr. HOWARD HUMPHRIS stressed the way in which treatment by sunlight increased the mental activity of the child. Dr. H. STANLEY BANKS gave details of the cases of rickets treated with ultra-violet light at the Carnegie Child Welfare Centre, Motherwell. The improvement in the vast majority of cases was clear and outstanding, and only three or four out of 120 showed any signs of relapse. Dr. S. T. BEGGS (medical officer of health for Middleton) had found treatment with the mercury vapour lamp in children suffering from marasmus, rickets, and debility uniformly good, and he described the improvement obtained in a number of cases.

On the third and last day of the conference the first subject for debate was the working of the Maternity and Child Welfare Act, 1918, and some indications for its further development. Dr. JAMES A. STEPHEN gave an account of the provision in Aberdeen of hospital beds for infants and children under school age. Experience showed that a minimum of 100 beds for 100,000 of the population was required for children under 5 years of age, and that this figure would in all probability be greatly exceeded when intensive orthopaedic services were required for poliomyelitis, tuberculosis, and other disabling conditions.

Respiratory disease as a factor in infant mortality was next considered, under the chairmanship of Dr. ELWIN H. T. NASH, who referred to the effect of environment on the incidence of these conditions. Dr. A. S. M. MACGREGOR (medical officer of health for Glasgow) spoke on certain aspects of administration which should receive attention. In Glasgow the proportion of patients with acute primary pneumonia who were now removed to hospitals under the local authorities had reached the high figure of about 60 per cent. An example of the severity of acute primary pneumonia was shown by the fact that among 5,334 children under 5 years of age admitted to Glasgow hospitals during the last seven years there were 1,404 deaths, a case mortality rate of 26.3 per cent. The disease was much more severe in children under 1 year, the case mortality rate reaching 40 per cent. The secondary pneumonias following measles and whooping-cough also required hospital treatment, and it had been the policy for many years in Glasgow to provide as much hospital accommodation as possible for these cases. Among other speakers in the discussion were Dr. CHODAK GREGORY, who spoke of the treatment of lobar pneumonia and bronchopneumonia, the latter, she said, being essentially a disease for institutional treatment; and Dr. K. SIMPSON (medical officer of health for Barking), who emphasized the importance of natural feeding as constituting one of the strongest weapons in combating infantile mortality as a whole.

Other subjects dealt with in the course of the conference were the problem of the expectant unmarried mother, the pasteurization of milk, and the organization of day nurseries. The conference was well attended, and the discussions were earnest, if a little colourless. An exhibition was held in the Hastings Hall, and many visits were organized from Tavistock Square to the child welfare institutions in London.

RICHARD BRIGHT COMMEMORATION AT GUY'S HOSPITAL.

THE celebration of the centenary of the discovery of Bright's disease took place at Guy's Hospital (where Richard Bright was physician from 1820 to 1843) on July 8th. In the morning a demonstration was given by Professor LUDWIG ASCHOFF of the University of Freiburg, on the pathology of Bright's disease, and a clinic by Professor LEMIERRE of the University of Paris (acting as deputy for Professor Widal), on selected cases; the chair was occupied by Dr. JOHN FAWCETT and Sir WILLIAM HALE-WHITE respectively. Subsequently the Earl of Balfour, K.G., O.M., F.R.S., and a party of distinguished guests were entertained to luncheon. Among others present at the luncheon were:

Sir Thomas Barlow, Sir James Berry, Sir William Beveridge, Sir John Rose Bradford, Lord Dawson of Penn, Dr. H. Morley Fletcher, Sir Walter Fletcher, Sir Alfred Fripp, Sir Archibald Garrod, Sir Cooper Perry, Sir Humphry Rolleston, Sir J. Purves-Stewart, Mr. F. P. Whitbread (treasurer of the hospital), and Dr. R. A. Young.

In the afternoon a large audience assembled in the Physiology Lecture Theatre to hear Dr. W. S. Thayer, Emeritus Professor of Medicine, Johns Hopkins University, Baltimore, U.S.A., deliver the Bright Memorial Oration.

The EARL OF BALFOUR, who presided, said that he believed Professor Thayer had made individual investigations into the life and work of Bright which would enable him to speak with authority not only on the strictly medical aspects of the discovery but on the man himself. One piece of information which he had himself learned recently about Bright from a member of the Medical Research Council was that, quite apart from the particular discovery which had made Bright's name immortal in the annals of medicine, he was the first to perceive all the advantages that might be obtained by collecting similar cases together under similar conditions, and dealing by team work with the different aspects of certain diseases. Lord Balfour doubted whether that important doctrine had even now penetrated among those interested in medical research to the extent to which it was desirable, but it was interesting to reflect that eighty years ago, when Dr. Bright enunciated this principle, it found some response at his own hospital, though very little response elsewhere. Of Professor Thayer himself, he said that his services in connexion with medical research, and especially his services to the allied and associated powers in the great war, had earned their deep gratitude. He was also pleased to reflect that in a very small and indirect fashion he himself had some connexion with his medical career. It happened that one of Professor Thayer's great friends was Professor of Medicine at Johns Hopkins University at the time when the Regius Professorship of Medicine at Oxford fell vacant. As Prime Minister at that time the speaker was responsible for recommending the new Regius Professor to the King; he took a great deal of trouble over the appointment, and he was fortunate enough to secure the services of that same professor at Johns Hopkins, the late Sir William Osler, and to his post at Baltimore Professor Thayer was in the succession. He was glad to think that in that small matter—rather a slight and vague one, he must admit—he had some connexion with the great career of Professor Thayer.

Professor THAYER then delivered his oration, which is printed at page 87.

Dr. A. F. HURST, physician to the hospital, in proposing a vote of thanks to Professor Thayer, said that when Osler came to Oxford in 1905 he left a gap in the medical world of America which it seemed almost impossible to fill. But the ever unlocked door communicating between his house and that of his most intimate friend and earliest disciple, Dr. Thayer, betokened a community of thought and ideals, which led men to look to Thayer to occupy the position which Osler had held for so long. In this they were not disappointed. He knew enough of American medical opinion to feel sure that if the profession as a whole had been asked to nominate a representative to visit Guy's to deliver the Bright Oration they would have chosen Thayer. Many men would have contented themselves with reviewing Bright's work and showing its influence on medicine to-day. Professor Thayer took his duties more seriously, and spent many hours in the medical libraries of America reading everything that he could find which bore upon the life and work of Bright. More than a month previously he came to England to continue his researches at the various medical libraries, the British Museum, and the Bodleian, and among the records of Guy's. He had unearthed a mass of information of the greatest interest, of which the brilliant address just delivered only gave the bare summary. Professor Thayer felt as much at home in England as he did in America, and he had the gift of making English visitors to Baltimore realize that, after all, there was little difference between a good American and a good Englishman. The address he had delivered had set a seal upon the traditional friendship between Guy's and Johns Hopkins. He asked Lord Balfour to present to Professor Thayer one of five Bright memorial medals.

LORD BALFOUR did so with a few graceful words.

Dr. HURST then asked Lord Balfour to present medals to Professor Aschoff, Professor Lemierre (representing Professor Fernand Widal), and Sir John Rose Bradford. With regard to Professor Aschoff, he said that in these days of specialization there was a tendency for pathologists to lose touch with clinical medicine. Professor Aschoff was foremost among those who followed in the path of Guy's clinician-pathologists, of whom he need only mention Bright, Addison, and Wilks. His investigations on jaundice, gastric ulcer, and arterial disease were evidence of this, and those who had had the privilege of being present at his pathological demonstration that morning could appreciate how much he had done to develop a knowledge of the disease the discovery of which a hundred years ago they were celebrating that day. It was specially appropriate that one who had always offered a warm welcome in his laboratories at Freiburg to the young pathologists of Great Britain and America should be the representative of German medicine on that occasion.

There was no need to hesitate (Dr. Hurst continued) before inviting Professor Widal as the representative of French medicine to the celebration. He and his pupils had founded a new school of humoral pathology, the development of which had led to results of the most far-reaching importance in almost every branch of medicine, but especially in connexion with diseases of the kidneys. Nobody could have been present at one of Professor Widal's clinics in the wards of the Hôpital Cochin without falling a victim to his inspiring influence. Unfortunately illness had prevented him from travelling, and his distinguished pupil, Professor Lemierre, would convey the medal to Professor Widal.

As for Sir John Rose Bradford, Dr. Hurst said that twenty-three years ago, when working for his final M.B. examination, everything he had read about nephritis seemed only to add to his confusion. Fortunately, at that moment Sir John Rose Bradford delivered his Croonian Lecture on Bright's disease, and everything at once became clear.

One other medal was presented. On behalf of Mrs. Starling, Dr. Hurst received the medal which the school had decided to award to the late Professor E. H. Starling prior to his death.

LORD BALFOUR, in presenting this last medal, said that this ceremony could not be without melancholy. This posthumous recognition of a great investigator must touch all hearts, and he trusted it would bring to Mrs. Starling some slight consolation.

Mr. WHITBREAD (treasurer of the hospital) proposed a vote of thanks to Lord Balfour, and LORD BALFOUR, in acknowledging the heartiness with which the vote was received, recalled the fact that fifteen years ago he had spoken in that place on the subject of medical research. Professor Thayer had given a most lucid portrait of an observer of unequalled perseverance and accuracy, and one who knew how to turn his observations to account. Those were, in some respects, different arts, and their combination resulted in great gain to humanity.

British Medical Journal.

SATURDAY, JULY 16TH, 1927.

RICHARD BRIGHT.

LAST week both Guy's Hospital and the Royal College of Physicians of London celebrated the centenary of the publication of the first volume of Bright's *Reports of Medical Cases selected with a view of illustrating the symptoms and cure of diseases by a reference to Morbid Anatomy*. It contains the announcement of the discovery of "Bright's disease." The central incident of the celebration was the address by Dr. W. S. Thayer, Emeritus Professor of Medicine in Johns Hopkins University, Baltimore, and President-elect of the American Medical Association, which is printed in the opening pages of this issue. To its preparation much time and thought must have been given, and it shows a very thorough acquaintance with Bright's life and labours. No one who will give himself the pleasure of reading it can fail to perceive that Richard Bright, physician to Guy's Hospital, was a many-sided man; he was a geologist, an excellent linguist, a considerable traveller, and a first-rate draughtsman. But he was far more than a man of general ability; he was perhaps the most remarkable British physician after Harvey; to him, as to few others, was given a marvellous faculty of observation, which in his case was combined with an unerring power to correlate.

Dropsy is a condition which must have been noticed from an early stage of the history of the human race, and long before Bright's time it was known that the urine sometimes coagulated on heating. Even atrophied kidneys had been described, but Bright, a hundred years ago, made what must have appeared then an astounding statement—namely, that "I have never yet examined the body of a patient dying with dropsy, attended with coagulable urine, in whom some obvious derangement was not discovered in the kidneys." He gave notes of twenty-three cases to illustrate his contention. After this publication in his *Reports of Medical Cases* he continued to work at the subject, and other papers by him appeared. He introduced team work, for he says that with "his young friends and pupils Mr. Barlow, Mr. Tweedie, and Mr. Rees" he examined the urines of 296 patients, and he and Mr. George Robinson began making microscopic examinations of the kidneys of 100 patients. Two wards were filled entirely with sufferers from renal disease; to them a laboratory was attached, and all the patients were under the care of Bright. Readers of his writings on renal disease cannot fail to conclude that they form one of the most wonderful series of papers in medical literature. We are told of the uraemic symptoms, of cerebral haemorrhage, of loss of sight, of the hard pulse, of the oedema, of pleural, pericardial, and peritoneal effusions, of the bronchitis, of the cardiac hypertrophy, and of the enteritis. A disease which presents symptoms of derangement of almost every organ of the body is unhesitatingly ascribed to the kidney. We are shown how to diagnose it. Its causes, its symptoms, its treatment, and its *post-mortem* appearances are given with such completeness and accuracy that, after a century, no error has been detected, and, if we except a few facts that have been gleaned by instruments Bright did not possess, nothing of importance has been added. This great man had not the aid of laboratory experiment; therefore his task was far harder, for he interpreted, and correctly interpreted, the experiments made by Nature. He did it with so much ease, and so modestly, and his results have become so much a part of the necessary mental equipment of every medical student, that many give little thought to what medicine owes to Bright; hence this centenary celebration and Professor Thayer's address are well timed.

But even if he had not discovered the disease that bears his name Bright would have been one of the greatest of our physicians. He ascribes spastic paraplegia to sclerosis of the spinal cord, he notes hemiopia in cerebral haemorrhage, he recognizes epileptic somnambulism, he tells us that what we now call Jacksonian epilepsy is due to organic intracranial disease, he is a pioneer in cerebral localization—for he knows that the lesion is on the opposite side to the fits—he gives an admirable account of aphasia, he observes paralytic chorea, and he was the first to notice the mitral murmur often present in a sufferer from chorea. He was also the first to describe the fatty stools that occur with disease of the pancreas; his description is admirable—it might fittingly be copied into any modern textbook. He tells us that such stools are symptomatic of pancreatic disease. He observes that the cirrhotic liver of an alcoholic first becomes large and then shrinks, and he gives us the earliest description of the clinical symptoms and *post-mortem* appearances of acute yellow atrophy of the liver. He was much interested in chronic proliferative peritonitis, and it is to him that we are indebted for the first account of the symptoms and morbid anatomy of this disease. He recorded fifteen cases of abdominal hydatid disease, and, as has been said, "It is but due to the memory of Bright to state . . . that the description of acephalocyst hydatids is altogether original." His was probably the first description of the bronchopneumonia and pulmonary collapse which accompany whooping-cough, and it will be news to many that he sometimes used inhalations of oxygen.

For one person who can see, fifty can think. Bright's power of seeing was marvellous—little escaped him; as with renal disease, so with other maladies—none of his observations have been shown to be incorrect. His accuracy and love of truth were wonderful; no preconceived idea tints his writings; but what is most astonishing of all is the number of instances in which, entirely by his own genius, without any previous writers to guide him, he correctly assigns a whole group of symptoms to a particular morbid anatomy. His industry was unflagging. He worked six hours a day at his hospital; he would willingly go into the country—it was slow travelling then—in order to be present at a *post-mortem* examination. Then he could write well; as Sir William Hale-White said in the account of Bright's life he contributed to the *Guy's Hospital Reports* in 1921, many modern textbooks would be vastly improved if some of their pages were deleted to make room for Bright's descriptions. He was an artist too—no medical work has more beautiful pictures than are to be found in the *Reports of Medical Cases*. He was a cheerful, attractive man, beloved by the profession and by his colleagues at Guy's, who were always ready to help his researches. He was ungrudging in his admiration of the work of others, and intensely proud of the hospital to which he was attached. It must be but rarely that any profession is adorned by such a man.

THE PROPOSED POST-GRADUATE MEDICAL SCHOOL IN LONDON.

LAST week we published in full (p. 83) the statement made in the House of Commons by the Minister of Health as to the action he proposes to take on the recommendations of the Departmental Committee he appointed two years ago to "draw up a practical scheme of post-graduate medical education centred in London" He said that the committee recommended the provision of a hospital of about 400 beds, and that it would probably be situated at and in connexion with the West London Hospital, Hammersmith. In commenting upon the scheme last week we observed that the proposed site was not altogether ideal, since it is not very central as regards other university and medical institutions in London. The original recommendation of the Athlone Committee favoured the establishment of the school and hospital in a much more central part than that now proposed; but the point is perhaps not of first-rate consequence, since the West London Hospital is quite close to several railway stations and has many other means of ready access by tramway and omnibus.

Two matters of importance arise in connexion with the recommendation that the hospital should have 400 beds. The first is as to the services to which these beds should be allocated. If they are divided between general medicine, general surgery, obstetrics and gynaecology, ophthalmology, oto-rhino-laryngology, dermatology, orthopaedics, and so on, it does not appear that the number will be sufficient for the purpose, unless only one unit is allocated to general medicine, one unit to general surgery, and the remaining beds to special subjects. As the courses of instruction which will be given in the hospital will be intended entirely for graduate students, it need not perhaps be assumed that it will be necessary to allocate any considerable number of beds to general medicine and surgery. If, however, a school can be provided in which the subjects are divided on the lines of specialties, the proposed 400 beds will in all probability be sufficient. A special department possessing twelve to twenty beds and a properly equipped and sufficiently spacious out-patient department would be able to do a great deal both for the treatment of patients and the instruction of graduates.

The arrangements for the staff in connexion with the hospital will require very careful and detailed consideration before the plans are finally settled. In the first place it will, in all probability, be found necessary to have a whole-time professor of pathology, and whole-time assistants in special departments, such as bacteriology, biochemistry, and physics as applied to pathology and physiology. About the necessity for these appointments there can be no doubt. For the general direction of clinical teaching at least two directors or professors will be needed—one to be the head of the medical service and the various departments which may be judged to belong to that branch, and the other to be head of general surgery and the departments subsidiary to it.

The report of the Athlone Committee suggested that it would be advisable, in connexion with the proposed centre of post-graduate education in London, to enlist the services of teachers from the undergraduate schools to a certain extent. The way in which this recommendation should be carried out has not yet been at all fully discussed. One method which appears feasible would be to allocate for the purpose two or more special units, the clinical head of each to be changed as occasion demanded. Thus, a special unit containing twelve to twenty beds and a fully equipped out-patient department might be placed temporarily in charge of a teacher of known reputation seconded from an undergraduate medical school for three months. To work the school on these lines would necessitate the appointment of a dean, who should have had large clinical experience and be thoroughly conversant with the details of medical education and administration, and also with the requirements of candidates for the various higher degrees and diplomas which are open to them.

If these principles are borne in mind from the first we think it will be possible to form a post-graduate school of medicine in London which will meet all the necessities of post-graduate medical education, and prove capable of attracting graduate students from our own public services, from the dominions, colonies, and dependencies, and from foreign countries. It must be borne in mind that the proposed school must, in addition to being a school for advanced instruction, cater for the education of the general practitioner. Everyone who has had experience of medical education and practice in its widest aspects will agree on the desirability of the general practitioner having the opportunity to revise his clinical and technical knowledge from time to time by attendance at revision courses in some medical educational institution such as that now proposed to be established.

Another point to which attention must be paid is contained in the recommendations of the Athlone Committee—that the school, when established, should be a school of the University of London. This, in our opinion, is absolutely essential. But in addition to representatives appointed by the University of London, the Royal Colleges of Physicians and Surgeons ought to be represented on its governing body. The University of London gives degrees and diplomas in various branches of medicine. The Royal Colleges of Physicians and Surgeons also give diplomas in some of the special branches of medicine and surgery. In some ways there is considerable overlapping in respect of the diplomas given by these several bodies. It ought not to be beyond the capacities of the governing bodies of the University of London and the Royal Colleges of Physicians and of Surgeons to evolve some plan by which the granting of diplomas in medicine and its allied subjects would be arranged on a common basis. The subject, however, bristles with difficulties, and any proposal with regard to it can only be made with some hesitation. The Royal Colleges of Physicians and Surgeons are of much older constitution than the University of London, and from some points of view they might feel the granting of diplomas in special subjects was a privilege which belonged specially to them. As, however, the University has established a number of medical and scientific diplomas it is unlikely that it would be willing to abandon this line of work.

As we recalled last week, there is already being erected in Bloomsbury, adjacent to the new site recently purchased by the University of London for its central administrative buildings and institutions, a post-graduate institution of great importance—the London School of Hygiene and Tropical Medicine; this affords another reason why the administrative centre of the proposed post-graduate school in medicine should be on the University site. There ought not to be any great difficulty in connexion with this, since there are a number of houses on the site now belonging to the University one or more of which might be allocated by the University for the purpose of the

administrative headquarters of the proposed post-graduate school. If it were intended to limit the activities of the school to the proposed new hospital this might not be necessary; but it has always been contemplated that when the post-graduate school was established it should not only have a central general hospital, but be affiliated with some of the special hospitals in London, such as the Moorfields and Westminster Ophthalmic Hospitals, the National Hospital for the Paralysed and Epileptic, the Samaritan Hospital for Women, Queen Charlotte's Hospital, the Royal National Orthopaedic Hospital, the Hospital for Diseases of the Throat, and, last but not least in importance, the Hospital for Sick Children. None of these is very far from the University site in Bloomsbury, and some are within quite a short distance. It is essential, when considering the proposed establishment of a post-graduate school, to remember that hospitals of this type, efficiently staffed and equipped, ought to be made available for graduate education. As already indicated, the proximity of the London School of Hygiene and Tropical Medicine is another reason why it would be a great advantage to have the central administrative headquarters of the proposed school on the University site.

To one matter of importance not much attention seems yet to have been given. This is the question of the finance of the hospital attached to the post-graduate school. Undoubtedly, as Mr. Chamberlain said, the post-graduate school, when established, will be utilized to a considerable extent by general practitioners in this country. This is certainly most desirable, taking into consideration the part that the general practitioner has to play in connexion with health insurance, which is a department of the Ministry of Health; it is quite conceivable, therefore, that when a post-graduate school and hospital of this kind has been established, the Ministry of Health will find it politic to give it a considerable subsidy. The return for this subsidy would be the improvement in the capabilities and efficiency of general practitioners, who would go to it, not only from this country, but from the colonies and dominions; it would also be frequented by medical officers of our public services, some of whom have to submit to examination to obtain promotion. When the ultimate arrangements are made in connexion with the school we trust that the points which we have mentioned will receive full consideration.

THE ANNUAL MEETING AT EDINBURGH.

THE first part of the Annual Meeting of the British Medical Association—the meeting, that is to say, of the Representative Body—will be in full swing at the end of this week. The President, Sir Robert Philip, will give his annual address on Tuesday, July 19th, and the Sections will begin on the morning of the following day. We learn with great regret that, owing to illness, Professor Harvey Littlejohn will be unable to take part in the work of the Section of Forensic Medicine, of which he is President. In common with his many friends, we sincerely hope that he may shortly be restored to health. Dr. C. Hubert Bond, Commissioner of the Board of Control (England and Wales), has accepted the office of vice-president of the Section of Mental Diseases, in place of Dr. Bernard Hart, who finds it impossible to attend the meeting. Dr. R. G. Canti has undertaken to give three demonstrations on the study of living tissues *in vitro* during the meeting. The demonstrations will take place in the Operetta House, Chambers Street, Edinburgh, at 12 noon on Tuesday and Wednesday, and on Thursday at 2 p.m. The provisional programme of the Annual Meeting appeared in last week's SUPPLEMENT.

THE INTERNATIONAL CONTROL OF DRUGS OF ADDICTION.

REPLIES recently given in the House of Commons by several Ministers do not indicate any satisfactory progress in securing the international limitation of opium and other drugs of addiction to medical or legitimate purposes. The International Opium Convention, which represented a "compromise so painfully reached" in February, 1925, at Geneva, remains inoperative. The Netherlands, Bulgaria, Czecho-Slovakia, and Poland have, it is reported, deposited ratifications, in addition to Great Britain, Portugal, the Sudan, and San Salvador. The Convention, from which its authors led us to expect so much, cannot, however, by its own articles, come into force until ratified by ten of the signatory Powers, including seven of the principal States represented on the League's Council, of which two must be States having permanent representation thereon. The Assembly of the League last September adopted a resolution urging the remaining signatories to ratify before the end of last year, but even now, in the middle of 1927, in default of the necessary ratifications, the Geneva Convention remains a dead letter. The latest figures available from India show that while the area under poppy cultivation has been reduced from 133,500 acres in 1923-24 to 114,198 acres in 1924-25, the amount of opium produced increased from 2,122,000 lb. in the former year to 2,340,000 lb. in the latter, while the revenue of the Government of India from opium, which was Rs. 1,66,02,095 in 1923-24, amounted to Rs. 2,03,52,437 in 1925-26. The Secretary for India stated recently that he had not yet received any communication from the League of Nations regarding the Commission which is to visit India and report to the League as to India's compliance with the opium convention. In the case of the Straits Settlements, Federated Malay States, North Borneo, and Brunei, the percentage of the total revenue of those colonies derived from opium amounted to 37.06, 13.4, 24.44, and 20.8 respectively. If we turn to the figures supplied by the Board of Trade for the amount of morphine exported from Great Britain, practically the whole of which was manufactured in Great Britain, we find that the year 1926 shows some reduction on the exports of 1925. In 1925 the number of ounces of morphine exported was 95,725, and in 1926, 73,288 ounces. While it is reported that in 1926 Germany received none, 16,462 ounces went to France, and 9,701 ounces to Switzerland. Although we are assured that no export of morphine is permitted "until the Department is satisfied that it is required for legitimate purposes," it is difficult to believe that strictly medical requirements are responsible for the large consignments licensed for export when the amount of the alkaloid produced in other countries is borne in mind.

THE COMMONSENSE OF DIET.

THE first annual lecture in memory of Sir John MacAlister, secretary of the Royal Society of Medicine, was delivered under the auspices of the London Clinical Society at the London Temperance Hospital on July 7th by Sir Thomas Horder, who took for his subject the old but never exhausted question of diet. Diet, he said, was important as a means of maintaining health, but not nearly so important a therapeutic measure in disease as the lay mind supposed. The physician was rarely consulted by healthy folk about their diet, and even if he were consulted it was unlikely that he would be able to tell them much that they did not know. Given a certain standard of quality of food and

care in its preparation, the main question resolved itself into quantity, and though the words "temperance" and "moderation" were not often used, it was these restraints which the physician had in mind, remembering, of course, that temperance did not mean abstinence, nor even parsimony. That most people ate too much was a fact not to be gainsaid, and when there was an enforced diminution of food calories during the war the health of the nation did not suffer. Brain workers were said to require less food than manual workers, but brain workers were of many categories, including the man who sat quietly working out mathematical problems and the man engaged in constant interviews and the activities of a busy office, whose expenditure of muscular energy was perhaps not less than that of the manual worker. The prudent man adapted his meals to his work; perhaps the still wiser course was to adapt as far as possible the work to the meals—for example, by the choice of lighter tasks to follow the midday meal. Sir Thomas Horder was prepared to admit the value of fasting for short periods in certain diseases, but in the absence of disease he had never seen good results which might not have been obtained by less drastic methods. Custom dictated three meals a day, and this was more or less consonant with the known function of the stomach; he did not know that two-meal men scored in efficiency. Fatigue made the consumption of a heavy meal undesirable. The busy doctor, for example, was apt to come in tired out after his day's work, and a solicitous wife would set a heaped plate before him, which had been "kept hot," often to the spoiling of its digestibility. The result was gastric stasis, a restless night, and various subsequent disabilities. How much better to pass by the set dinner and substitute a basin of bread and milk! Other things being equal, the female needed less calories than the male, but this consideration, like many others relating to sex differences, did not apply during the period of growth, and perhaps in any case it was only a matter of respective bulk. Experience suggested that women needed feeding at shorter intervals than men; certainly with them afternoon tea was not to be disregarded. It was a frequent fallacy that the health of the healthy-looking individual was due to his diet; some people could not help being well in spite of their diet. A woman asked with regard to her husband (a meagre and asthenic individual), "Would it not help him if he were a vegetarian as I am?" "Madam," was the reply, "I perceive you can afford to be a vegetarian." Sir Thomas Horder went on to speak of how diet, owing to excess in total amount or to some particular type of food, might be a factor in the production of disease, and similarly how deficiency diseases resulted from deprivation of vitamins. With ordinary mixed diet, however, there was no fear of vitamin starvation. Sometimes white bread was decried as inferior to wholemeal bread on the ground of vitamin content. While it was true that white flour was practically free from vitamin B, yet as yeast was extremely rich in this particular vitamin it followed that white bread did contain it. Wholemeal contained more, but the supply of this vitamin was in any case well ensured by other common articles of diet, such as eggs, lentils, and nuts. Sir Thomas Horder also considered that with most people consistency of stool was of greater importance than frequency. It had to be remembered that some degree of colonic stasis was physiological, and to take steps to remove it entirely unreasonable. It was a fallacy to teach that good health in all persons was proportionate to the rapidity of transit of the intestinal contents through the colon. He did not think there was any need to fear colonic stasis and constipation as precursors of cancer. Cancer arose in people whose function in this respect had been normal before the advent of the neoplasm. Moreover, cancer of the colon was more frequent in men than in women, whereas colonic stasis was much more prevalent among women than among men. The idea that as little should be put into the stomach as possible, and that it should be got out again as quickly as possible, seemed to him wrong, and to have possibilities of mischief.

EPIDEMIC CATARRHAL JAUNDICE.

AN outbreak of epidemic catarrhal jaundice involving over 200 persons overtook a number of places in the Midland and Eastern Counties of England during the winter of 1925. A report[1] just issued by the Ministry of Health states that the disease first showed itself early in September, 1925, at the village of Yardley Gobion, and appeared thereafter in succession in isolated foci, separated from one another by ten miles or more and apparently unassociated. The county borough of Peterborough alone excepted, all these foci were villages. All the Midland villages are described as infested with rats in varying degree. In Kings Cliffe a block of cottages where a patient lived was said to be overrun. There was no evidence of rat prevalence in affected houses in Peterborough. Of 100 cases investigated, 14 only were found to have occurred in adults. In Yardley Gobion, Ringstead, and Raunds children alone suffered. In the village of Kings Cliffe, on the other hand, 8 out of 9 patients were adults. A clinical survey of the patients who recovered indicates that vomiting was a constant feature, its severity and frequency being out of all proportion to the general mildness of the attack. All cases except the mildest complained of epigastric pain coincident with the vomiting. Generalized pain in bones and muscles attended the onset of some attacks. The intensity and duration of the jaundice varied. In mild cases it was fugitive and intermittent, showing in the conjunctivae only. In other cases it was more pronounced and distributed over the body, though more marked on the face, chest, and neck. Its tint was golden or orange rather than sallow or muddy, and was produced by the mingling of the jaundice yellow with the red colour of the blood, in which there was no appreciable anaemia. An urticarial rash of one day's duration was observed in one case. During the jaundice the urine was deeply coloured with bile pigments, and assumed a smoky brownish hue; urates were abundant and albumin present, often in considerable quantity; the reaction was usually acid, and in 8 of 20 cases examined acetone was demonstrated in the urine. Most cases had initial constipation with pasty stools. Later, owing to excessive flow of bile into the intestine, the stools became dark and more fluid. The liver in a few cases was slightly enlarged and palpable. The temperature was seldom more than 100° or 101°. Some cases were afebrile. A child of 11 who died was severely ill from the outset, with constant vomiting, severe abdominal pain, jaundice, and delirium; pulse 100, but no pyrexia. The liver extended for two inches below the costal margin. A dark-coloured stool was suggestive of haemorrhage. Death took place by sudden collapse after nine days' illness. At *post-mortem* examination the brain, lungs, heart, stomach, intestines, spleen, and kidney appeared to be normal. There was a little pus in the crypts of the right tonsil. The liver was large, soft, and yellow, and on section pale and fatty in aspect. Microscopically the liver cells were distended with fat, especially round the periphery of the lobules. The portal canals were packed with a small round-celled infiltration. Actual necrosis could not be made out. The liver condition in this fatal case, and the discovery of leptospira in the urine of a girl of 9 who, though not closely related to the outbreak under discussion, was suffering from typical epidemic catarrhal jaundice, suggested the thought that this series of cases might be a form of spirochaetosis, and therefore

[1] Ministry of Health. Reports on Public Health and Medical Subjects. No. 42. H.M. Stationery Office, or through any bookseller. Price 9d. net

associated through a common causative agent with infective jaundice or spirochaetosis icterohaemorrhagica, also known as Weil's disease, a malady which made its appearance in Scotland in 1923, as described in a report of the Medical Research Council, reviewed in the JOURNAL two months ago.[1] A careful series of tests was carried out with *post-mortem* material, urine, and blood of patients, and water from water supplies; microscopically by use of the dark field or silver-impregnated sections, experimentally by inoculation into guinea-pigs and by testing the blood serum of convalescent cases for agglutinative and protective power against a strain of leptospira; but all attempts to demonstrate the presence of *Leptospira icterohaemorrhagiae* or trace it inferentially by serological methods proved unsuccessful. It is notorious, however, that leptospira is difficult to find, that it may appear in blood or urine for a few hours only, and that the protective power of convalescent serums against stock leptospirae is uncertain, so that the question cannot be regarded as closed, and further inquiry will doubtless throw light on this hitherto baffling problem.

VEXED QUESTIONS.

RESISTANCE to change has been an effective agent in moderating the speed or guiding the direction of human progress. Inspired at one time by subjective motives, at another by principle or policy, its workings can be traced through a wide range of interests, from religion and statecraft to natural science. Medicine itself has not been immune to the influences of this stabilizing inertia, as is evidenced by the controversies which have so frequently attended innovations in medical thought or practice. These medical controversies are now analysed by Mr. Bernhard J. Stern, in an essay on the social factors affecting medical progress.[2] He chose the medical field "because the subjective factor can be eliminated to a greater degree than when dealing with the subject matter of politics, religion, art, or economics," a recognition of the disinterested attitude of the profession which, coming from him, is noteworthy. Mr. Stern's views on the vaccination dispute, recently noticed in the JOURNAL,[3] are summarized and included in the present work. Among the forces resistant to medical or other progress he gives the first place to the vested interest, comprising in the term both the tangible vested interest based on pecuniary grounds and the intangible form bound up with status, honour, and prestige. He admits, but dislikes, the power of tradition. Conservatism, in his eyes, seems to be concomitant with inability to cope with problems through lack of knowledge, whatever the cause of the ignorance may be. Medical education has always lagged behind the advanced practice of specialists, and medical schools are cautious in their attitude to innovations because their prestige and reputation are involved. The general factors which retard change are classed as psychological, cultural, mechanical, and personal, of which the first includes fear of the unknown, the second the power of authority, the third the essential inertia of systems, and the fourth the hatreds of rival disputants. Having laid down his categories, the author proceeds to their medical application. He fits them into the opposition to dissection, to Harvey's theory of the circulation, to Auenbrugger's percussion, to vaccination against small-pox, to the views of Semmelweis and Holmes on puerperal fever, to Pasteur's work, and to antisepsis and, finally, asepsis. He might with advantage have thrown into higher relief the distinction between the professional and the popular phases of medical controversies, since the latter are more disturbing to the community at large, and are liable, besides, to aggravation through quite fortuitous causes. Dissection, for example, though never genuinely attractive to the public, acquired its chief infamy through body-snatching and the suspicion of murder—neither practice germane to its pursuit; and vaccination, at first a question of medical opinion, met its most strenuous opposition later as a result of the introduction of compulsory laws, which raised the question of liberty. The author is not a hero-worshipper. He is, on the contrary, rather impressed by the minuteness of the contribution of any particular worker to the general store of knowledge. He adduces a list of multiple or simultaneous discoveries in medicine as bearing on this point. Throughout the book his handling of motives is consistent, if on occasion Procrustean. In his reference to the Broad Street pump handle, in connexion with the cholera outbreak in London in 1854, he is somewhat cryptic. His Latin quotations are not flawless, and the Paul whom he associates with Charles V in the banishment of Brissot is a Paul whom we do not know. Mr. Stern's book may be described as in general a fair commentary and a stimulating contribution to the interesting subject with which it deals.

[1] May 7th, 1927, p. 844.
[2] *Social Factors in Medical Progress.* By Bernhard J. Stern, Ph.D. Studies in History, Economics, and Public Law, No. 287. New York: Columbia University Press; London: P. S. King and Son, Ltd. 1927. (Med. 8vo, pp. 136. 9s.)
[3] June 4th, 1927, p. 1010.

LYMPHATICS OF THE HEART.

THE results of an investigation into the lymphatic drainage of the heart of the sheep, rabbit, and man, by Dr. L. R. Shore, have been presented to the Anatomical Society of Great Britain and Ireland. Investigations in the living rabbit indicate that both heart and pericardium drain constantly to a gland just outside the pericardium, which lies between the right superior vena cava and ascending aorta and in front of the right branch of the pulmonary artery. Injection of the dead sheep's heart by the method of Jamieson and Dobson shows either a convergence of the main lymphatic trunks to this same district, or the presence of a posterior lymphatic trunk on the back of the left auricle. Two types of lymph drainage are thus recognized in the sheep. Observations of the glands enlarged in rabbits, the subjects of experimentally induced endocarditis, are included. The same gland in the region of the right superior vena cava is found constantly enlarged. Some preliminary observations in the *post-mortem* room on cases of infective endocarditis have disclosed the presence of enlarged fleshy glands, distinct from the pigmented glands of the bronchial system, between the superior vena cava and ascending aorta, in front of the right branch of the pulmonary artery, and on the back of the left auricle, to the right of the left pulmonary veins. The names of "caval" and "auricular" glands of the heart are suggested. The caval gland recalls the arrangement in the rabbit, and the auricular gland the arrangement in one type in the sheep. Further investigation, both in the *post-mortem* room and in the laboratory, is required before these tentative suggestions of the lymphatic drainage of the heart can be regarded as established.

THE Maudsley lecturer nominated for 1928 is Sir John Macpherson, K.B.E., M.D., professor of psychiatry in the University of Sydney, N.S.W., and at one time a commissioner of the Board of Control for Scotland.

THE Board of Trade has exempted uncompounded drugs, from whatever source derived, which are sold for medicinal purposes, from the requirement that imported goods bearing a British name or trade mark must also bear an indication of origin. The exemption does not apply, however, if the drugs are sold or exposed for sale under a proprietary name.

THE PORTRAITS OF LISTER.

(With Coloured Plate.)

A REPRODUCTION in colours of the portrait of Lord Lister by Mr. J. H. Lorimer, R.S.A., forms part of this issue of the JOURNAL.

It is fortunate for those who did not know him in the flesh that excellent representations of Lord Lister's features exist in oil paintings and in marble, stone, and bronze, as well as in photographic prints. Succeeding generations will thereby be able to form some idea of what manner of outward man was animated by the great spirit of this world's benefactor, and, through the genius of the artist, even to form some idea of that spirit from the painter's or the sculptor's work. It is well, too, that those who did know him should be able to refresh their memories of the master's bodily form and expression by looking from time to time on these counterfeit presentments, and to be able to say, as did the commemorator of Francis Bacon, "Sic sedebat."

Joseph Lister, though a skilful draughtsman, who illustrated many of his papers by drawings of his own, did not inherit in full measure his father's skill with the pencil or even with the scissors, to which last we owe the earliest representation of him in the form of a silhouette reproduced in Sir Rickman Godlee's *Life*. Even in this simple shadow effect it is possible to detect some of the characters of the adult profile. There is the same rounded ample brow, and there are the finely cut lips which seem ready to quiver with sympathy or enthusiasm, but which also could, when closed, express an iron firmness and decision when principles were in question, as is seen in Mr. Havard Thomas's medallions set up in University College and University College Hospital in 1919. At the request of his many admirers, Lister sat for his portrait in oils on three occasions. In 1894 a number of Fellows and Members of the Royal College of Surgeons of England subscribed towards the cost of a portrait, to be added to the collection of likenesses of distinguished surgeons already housed in the building in Lincoln's Inn Fields. Mr. W. W. Ouless, R.A., produced a fine picture, which was presented in 1897 and now hangs in the Hall of the College. Lister's nephew and biographer, Sir Rickman Godlee, wrote of this portrait as the best likeness of him, although he thought that the colours of the face and eyes were too bright. Everyone who sees it will admit that it is a fine picture, and those who remember the sitter will agree with Sir Rickman Godlee that it is a good likeness. A few years earlier a subscription was raised to present Sir Joseph Lister (as he then was) with a portrait of himself as a mark of admiration and affection from those who had been his students at King's College Hospital and at the University of Edinburgh. The painter chosen was Mr. J. H. Lorimer, R.S.A., and the picture which he painted was presented to Lister in 1895, and was hung in his house in Park Crescent. In his will Lord Lister bequeathed the painting to the University of Edinburgh, where it has a place of honour in the Library Hall, which was temporarily vacated when the portrait was lent for exhibition during and after the centenary celebration in London to the Wellcome Historical Medical Museum in Wigmore Street. We understand that the collection of objects then exhibited is being temporarily transferred to Edinburgh this month, after which the portrait will resume its place in the Library Hall. In the opinion of many of those to whom Lister was well known this painting is an even better portrait than that by Mr. Ouless. The colours are less vivid than those of the College picture, but the pose of the head and hands and the expression of the face are even more characteristic. The treatment of the lips and mouth is particularly successful. Lister was 68 years of age when he sat for this portrait, and the grey hair and white whiskers (which latter he still wore according to the fashion of his youth) show the passage of the years, but the cheeks are ruddy and the face but little wrinkled for his age. Sir Rickman Godlee tells us that Lister did not inherit the beauty of hands which distinguished his mother, for they were square and thick and the fingers rather short. Mr. Lorimer has left the greater part of the fingers in obscurity, and the other artists who painted Lister did not make the hands prominent in their compositions. Enough, however, of them is shown by Mr. Lorimer to give an idea of suppleness and power. They are not the hands of an idler nor (despite carbolic acid) are they the "red merciless hands" of Tennyson's regrettable and, by himself, regretted outburst.

The portrait Mr. Hugh Riviere painted for the members of the Council of the British Medical Association was reproduced as a special plate in the Lister Jubilee Number of the BRITISH MEDICAL JOURNAL, published on December 13th, 1902. The original now hangs in the Hastings Hall of the Association's House. It was taken when he was 75 years of age and after his health had become impaired, but it shows perhaps better than any of the others the geniality and benevolence which were parts of his character. Besides these portraits there are groups in which Lister's figure occurs, representing the scene at the Sorbonne on the occasion of the jubilee of Pasteur. One of these (by Rixens) was reproduced in our Lister number last April. Another smaller one, by Gsell, representing only a group on the same occasion, was lent to the Wellcome Museum by the French Government. Both these are oil paintings.

There are also some photographic portraits, of which one by Mr. R. A. Bickersteth, F.R.C.S., is reproduced in photogravure as the frontispiece to Godlee's *Life*. This excellent likeness was taken at the age of 69 during the meeting of the British Association at Liverpool in 1896. An earlier one in daguerrotype, taken at about the age of 28, is interesting. It is nearly full face, and, despite the whiskers, it shows a very youthful face with the thoughtful expression characteristic of Lister in later life. Another photograph, taken at the age of 40, is also reproduced by photogravure in the *Life*. The face is thin and the expression rather sad and anxious. It was about this time that he suffered the grievous disappointment of failure to be elected to the surgeoncy to University College Hospital and the professorship of surgery in the College. The admirable bust of the successful candidate, John Marshall, keeps Lister's company now in the hall of the College of Surgeons.

Of carved or moulded representations of Lister the bust by Sir Thomas Brock, R.A., just alluded to, is easily the best. It is a masterly performance and all the more meritorious because this and the same artist's medallion in Westminster Abbey were both executed after Lister's death. This medallion was reproduced on the cover of the Lister Centenary Number of this JOURNAL (April 9th). The medallion in the Glasgow Royal Infirmary and the seated statue in Kelvingrove, Glasgow, are less satisfactory representations. The latest memorial, that in Portland Place, near Park Crescent, where Lister lived in London, is also by Sir Thomas Brock, and was executed in 1922. To our thinking this is a disappointing work of art. The height of the colossal bust above the observer makes it difficult to get a satisfying view of the face, which can only be seen with its details obliterated by the bright sky, or against the disturbing trivialities of the houses on either side. Moreover, the colossal proportions of the bust make the otherwise charming figures of only natural size below it look insignificant.

Lister is honoured in Rome by a representation in marble on the façade of the Policlinico, where his is the central figure of the operation group. The likeness is unmistakable, but he has been erroneously clad in a gown, whereas he never wore one at an operation.

When Lister died in 1912 the University and the Royal Colleges of Physicians and of Surgeons of Edinburgh determined to set up a worthy memorial to him besides storied urn and animated bust. They planned an institute for the furtherance of the highest interests of medicine, and acquired a suitable site near the Royal Infirmary. The advent of the war and subsequent troubles and lack of funds have prevented the carrying out of this scheme, but it is hoped that advantage may be taken of the Annual Meeting this year to restart a movement which will carry the scheme to triumphant completion.

LISTER: A CONTINENTAL APPRECIATION.

PROFESSOR VON EISELSBERG'S MEMORIAL LECTURE AT THE ROYAL COLLEGE OF SURGEONS.

THE second Lister Memorial Lecture, established under the International Lister Memorial Fund, was delivered at the Royal College of Surgeons of England on July 7th by Professor ANTON VON EISELSBERG, professor of surgery at Vienna. The lecture was preceded by a reception, attended by many distinguished visitors, who were welcomed by the President of the College, Sir BERKELEY MOYNIHAN, Bt.

Professor VON EISELSBERG said at the outset that he assumed this distinction had been conferred upon him in a desire to honour his great master, Billroth, whose assistant he was for nearly ten years. It was Billroth who sent him during one vacation to see Lister in his clinic at King's College Hospital, and that would always remain one of the most impressive experiences of his career. He appreciated to the full Lister's kindness to himself and to another student who accompanied him. He then proceeded to review the position of pre-Listerian surgery in Continental hospitals, the toll taken by infection following operation, and the change which resulted from the adoption of the Listerian method. Although practically nothing now remained of Lister's original technique, the principle upon which that technique was based held good and would continue to hold good. There were those who declared that Lister had discovered only antisepsis, and that asepsis was an independent discovery, but in his view it was clear that asepsis was the direct outcome of the Listerian principle. In Vienna there was a predecessor of Lister—namely, Semmelweis, who, however, unlike Lister, did not live to see the recognition of the truth he had expounded. Semmelweis realized in 1850 that puerperal sepsis was due to unhygienic conditions caused by the failure of doctors and students to clean their hands thoroughly before making an examination. There had often been discussions as to whether Lister or Semmelweis was the father of the modern treatment of wounds. Such discussions were quite superfluous. It was a happy thing that two men, independently of one another, should have had the same epoch-making idea.

Thanks to Lister, great progress in many directions of surgery became possible; all manner of new operations were devised, based upon Lister's fundamental work. The drawback was that the enthusiasm of the surgeon sometimes prompted him to attempt too much, and with the diminution of danger operations were often performed without sufficient justification. The lecturer's own view was that some surgeons used operative methods for the treatment of fractures and for other conditions far too frequently. Every step forward in surgery might cost life; therefore before any such step was taken results should be checked by anatomical and physiological research and animal experiment. Lister, with his lofty principles and his habit of systematic and careful investigation, would have been the first to condemn unnecessary operations. The lecturer deplored especially unnecessary operations on the stomach. Formerly it became almost the fashion, in the presence of stomach trouble, to do a gastro-enterostomy. Post-operative jejunal ulcers were often the sequel. Indeed, one of his own pupils had written a paper which he had entitled, "Gastro-enterostomy a disease." The surgical removal of post-operative ulcer was one of the most difficult of operations, and even this operation did not with certainty prevent the appearance of a new ulcer. Indiscriminate gastro-enterostomy, which at one time was the most popular of gastric operations, had consequently in recent years lost much of its popularity. Incidentally he gave the following statistics from his own clinic. During the last twenty-five years there had been performed in his clinic 1,681 operations for gastric ulcer. Resection had been done in 1,102 cases, with 59 deaths; gastro-enterostomy in 541 cases, with 30 deaths; and jejunostomy (this last performed where neither resection nor gastro-enterostomy was possible) in 39 cases with 13 deaths.

Professor von Eiselsberg went on to speak of the standing of the surgeon, pointing out how during the last century the surgeon's status had greatly advanced. A hundred years ago the surgeon was not much more than an itinerant barber. If an operation was successful it was due to the foresight of the physician; if it failed it was owing to the clumsiness of the "barber." But the surgeon had now risen to the same social level as the physician, and coincident with this rise in status had been the growing efficiency of the nursing profession. The entire operating room staff, including especially the nurses and orderlies, now had a greater sense of responsibility. They realized that the healing of wounds by first intention was not a mere natural process, but depended upon the precise co-operation of all concerned.

Many problems were left for the rising generation to solve, including the problem of cancer, upon which societies in many countries—one of them in Austria—were engaged. London with its Cancer Hospital, which he had visited in 1887, was, as far as he knew, the first city to have such an institution. Then there were the further therapeutic possibilities indicated by the experiments on serum. Perhaps some day there would be forthcoming a polyvalent serum which would protect against all pathogenic organisms. This would render all present methods of asepsis unnecessary, and would simplify to the last degree all operative precaution. But whether this dream was realized or not, what Lister had given to the world would never be forgotten, and his name and the glory of his work would never be dimmed.

"When we surgeons leave our clinic," said the lecturer in conclusion, "we are never free from the responsibility both for the operation that has been performed to-day and the one which will be performed to-morrow. Men of other professions may be free in the evening from all cares, but if we leave the clinic we are always in its shadow, and that shadow is dark enough; it is the shadow of life and death. Generations come and go. Only the work performed remains. Before medical science could reach its present level an immense amount of plodding research had to be gone through, untold nights spent in vigil, numerous sacrifices of pleasure and ease had to be made. The world knows nothing of the silent performance of duty which our profession demands by day and night. . . . Lister introduced a new and truly beneficent age of medicine. His achievements command our greatest admiration. Great Britain can be proud that it was one of her sons whose name will be for ever associated with the most momentous progress of surgical science in modern times."

Presentation of Lister Medal.

Sir BERKELEY MOYNIHAN, the President of the College, handed to Professor von Eiselsberg the Lister medal, which, he said, was awarded every three years for distinguished services to surgery. Services to surgery might be gauged by many different standards. There was the standard of personal contribution, and some of those present had had the opportunity of witnessing the lecturer's contributions in the clinic which was the intellectual home of many of them before the war. Another standard was the training of men inspired by his own ideals and instructed in his own methods. Billroth, his great master, trained no fewer than eight men to occupy chairs of surgery in Europe; Professor von Eiselsberg, who had many years still to go, had already trained three holders of such chairs, and he hoped that he would not cease to train until he had equalled the record of his master. But something more than the science and art of surgery were taught in his clinic, for in his clinic a standard of conduct had been set up which they would all do well to imitate. He congratulated him not only as a great practitioner and teacher of surgery, but as a great example to all men who practised the art of surgery, and the College was to be felicitated also in that the name of von Eiselsberg was now enrolled in its annals with the immortal name of Lister.

THE BRITISH EMPIRE CANCER CAMPAIGN.

THE annual general meeting of the British Empire Cancer Campaign was held at the House of Lords on July 11th, with the Lord Chancellor, VISCOUNT CAVE, in the chair. A letter was read from the President of the Campaign, H.R.H. the Duke of York, in which, after expressing his pleasure at the efforts proceeding in all branches of cancer research, he spoke of the successful appeal for the establishment of a cancer research centre in connexion with the University of Sydney, an appeal which had resulted in contributions amounting to nearly £150,000. He was pleased to note that an application for affiliation from this new research centre was before the Council. Another happy association with Australia was the appointment of the former organizing adviser of the Campaign, Lieut.-General Sir John Goodwin, to the governorship of Queensland. He regretted that it was not possible for him to meet Sir John Goodwin during his visit to Australia, but he knew that his enthusiasm for the cause of cancer research would waken much sympathy and help in that country.

Lord CAVE said that there was ground for encouragement in the steady work going forward not only in London but in the provinces. The county appeals had grown, and an appeal would shortly be launched in Lancashire and Yorkshire, while in Ireland the National Cancer Campaign, which consisted of associated representatives from the north and south, had been granted affiliation.

Sir THOMAS HORDER, in moving that the fourth annual report be adopted, said that the long series of contributed reports which it contained bore good testimony to the work which was being done by institutions and individuals in receipt of grants. Although the Campaign was far from the point at which it could even pause in its efforts, there seemed to be more hopeful tendencies in recent researches than had previously existed. From the report it was clear that a concentrated attack was being made on the problem from many different angles—pathological, biochemical, radiological, immunological, and haemo-therapeutical. He noticed the statement that the Campaign did not accept responsibility for the facts or opinions contained in the reports compiled by institutions or individuals. The Campaign was not itself a research body. Its proper function was that of a co-ordinating body which, although supporting every reputable institution conducting cancer research and helping individual workers, yet abstained from interfering in any way with the domestic arrangements of such organizations in regard to their programme. Independent laboratories tackling identical problems might find that their interpretations of the results did not entirely coincide either with each other or with the results of scientific work elsewhere, and until the whole of this problem had been investigated it must needs follow that such apparent anomalies occurred. Among the reports there were certain divergencies of opinion on the results, and it was felt better that these divergent views should be presented so that the scientific world outside could argue the matter out. An instance of this was the work of Dr. Gye. Dr. A. Leitch, in a report on cancer research in the United States, said that American workers had in the main failed to agree with the Gye theory; and from other reports it was evident that here at home scientists as a whole had failed to accept it as conclusive. Yet a further report which he believed was about to be issued from the Cancer Research Department at Middlesex Hospital under Dr. McIntosh seemed to indicate that there was something in at any rate part of the Gye theory. Another interesting subject was the treatment of cancer by injections of solutions of colloidal lead into the blood stream, which was being investigated under research conditions in Liverpool by Dr. Blair Bell and his associates, and the Campaign was financing researches on similar lines at St. Bartholomew's Hospital. Another general method of treatment dealt with in the report was that undertaken by Dr. Thomas Lumsden on the possibility of some effective serum. He spoke appreciatively also of the work carried out by the Cancer Research Committee of the London Association of the Medical Women's Federation on the treatment of uterine cancer by radium.

The adoption of the report concluded the meeting, and a meeting of the Grand Council followed, with Sir JOHN BLAND-SUTTON in the chair, when Viscount Cave was re-elected Chairman of the Council and Lord Dawson of Penn and Sir John Bland-Sutton Vice-Chairmen. The members of the Scientific Advisory Committee were re-elected, with the addition of Professor D. P. D. Wilkie, F.R.C.S. of Edinburgh, who has been jointly nominated by the Royal Society and the Medical Research Council to replace Professor Robert Muir, who retires by rotation. Among the grants agreed to by the Council was a maintenance grant of £2,500 to the Cancer Hospital and one of £1,000 to St. Bartholomew's Hospital (X-Ray Cancer Research Department). On the motion of Mr. Lockhart-Mummery, the Council agreed to the request for affiliation to the Campaign received from the University of Sydney Cancer Research Committee. Sir WILLIAM MILLIGAN gave an account of the inception of a campaign in Lancashire and Cheshire.

BEIT MEMORIAL FELLOWSHIPS.

A MEETING of the trustees of the Beit Memorial Fellowships for Medical Research was held on July 7th. Dr. H. H. Dale was appointed to succeed the late Professor E. H. Starling as a member of the Advisory Board.

As we have already announced, the trustees in March last decided to increase the annual value of the Fellowships as from October 1st next: the junior Fellowship from £350 to £400, the fourth year Fellowship from £400 to £500, and the senior Fellowship from £600 to £700. The increase had been rendered possible partly owing to accumulation of income during the war, when Fellows capable of military service resigned to take up work of more immediate national importance, and partly because, owing to the prestige now attaching to the Fellowships, resignations following appointment to some important teaching post have become increasingly common. It will be remembered that the trustees also decided last March to institute a Research Fellowship in Tropical Medicine of the annual value of £1,000, tenable for five years. There are now, including those commencing work in October next, fifteen junior Fellows, three fourth-year Fellows, two senior Fellows, and two Fellows in tropical medicine. The report of the directors of the several laboratories in which the Fellows are occupied indicates that much work of value to science has been accomplished. The members of the Advisory Board are unanimously of opinion that the general standard of attainment shown by the candidates at this election is higher than has ever before been reached.

The following were elected to Research Fellowships:

Senior Fellowship (value £1,000 per annum for five years).—EDWARD HINDLE, M.A.Cantab., Ph.D., F.R.S.Ed., Original Beit Fellow 1910-12. Subject: Spirochaetosis, with Special Reference to the Causation of Yellow Fever.

Junior Fellowship (value £400 per annum).—HENRY POLLARD HACKER, D.Sc. Subject: Problems in the Prevention of Malaria.

Junior Fellowship (appointed to fourth year Fellowships, £500 per annum).—(1) ALAN STERLING PARKES; (2) Miss HONOR BRIDGET FELL; (3) Miss MARGARET AVERIL BOAS.

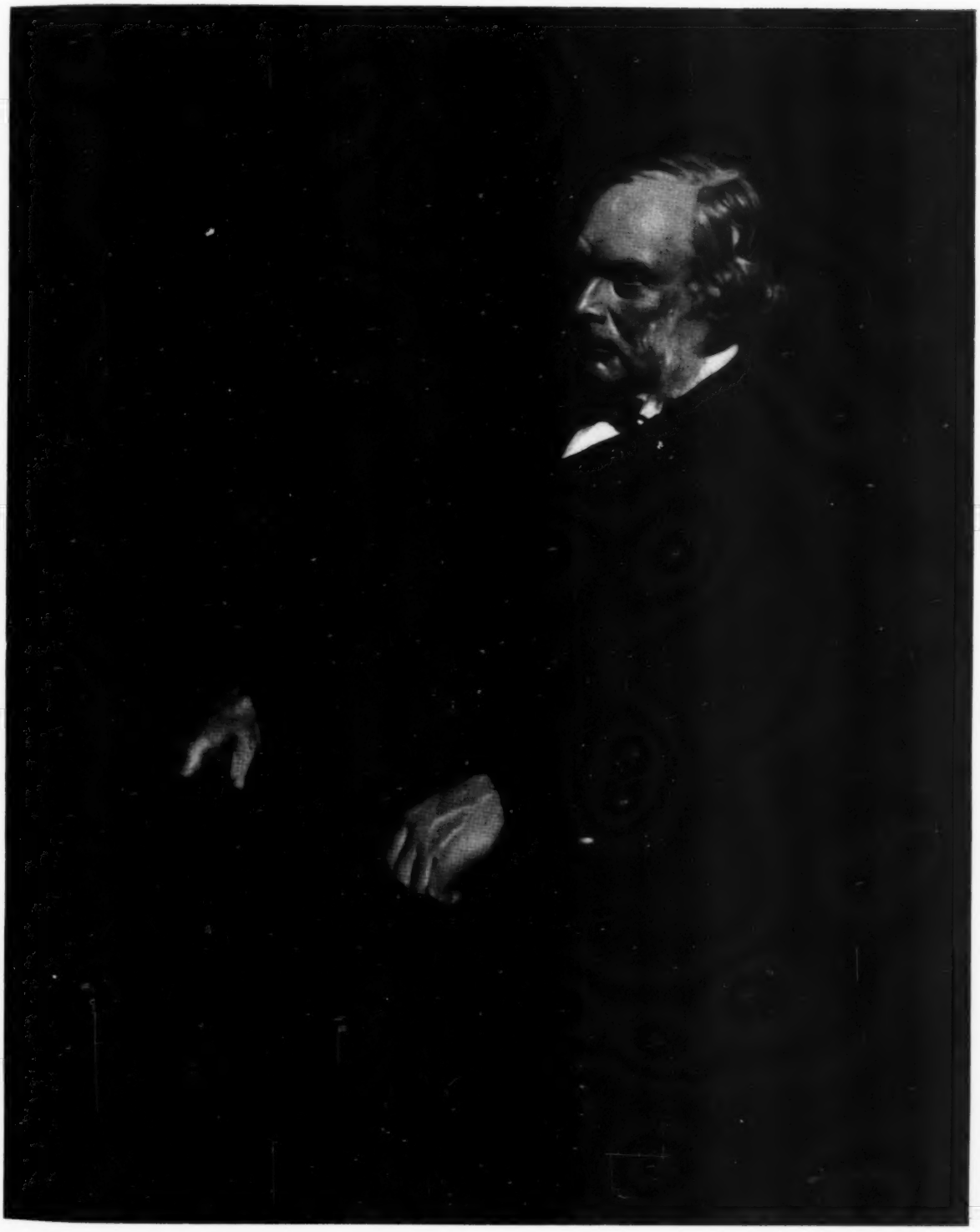
Fourth Year Fellow (appointed to Senior Fellowship, £700 per annum).—WILLIAM KERSHAW SLATER.

Junior Fellowship (£400 per annum).—(1) FRANK ROBERT WINTON; (2) WALTER REGINALD WOOLDRIDGE; (3) WALTER THOMAS JAMES MORGAN; (4) PHILIP EGGLETON; (5) GUY FREDERIC MARRIAN; (6) ARCHIBALD ROBERICK FEE.

England and Wales.

WELSH NATIONAL SCHOOL OF MEDICINE.

THE controversy about the position of the Welsh National School of Medicine and its relation to the South Wales and Monmouthshire University College, Cardiff, appears to have entered upon a new stage, owing to the publication of a letter signed by Dr. Mitchell Stevens, senior physician, and Mr. Cornelius A. Griffiths, senior surgeon, Royal Infirmary, Cardiff, and by Professor David Hepburn. The letter suggests that the scheme for Wales should follow closely the model set up some years ago at University College, London. It points out that an undergraduate seeking a medical degree of the University of Wales must first obtain either the B.A., or B.Sc. of the Faculty of Arts or the Faculty of Science of the University of Wales.



LISTER

After a portrait by Mr. J. H. Lorimer, R.S.A.
(1895)

The customary procedure is for such students to choose the B.Sc., the curriculum for which covers three years. Each of the university colleges in Wales provides for five of the seven courses of study, but the two others—anatomy and physiology—can be obtained in Cardiff only.

The suggestion is that there should be a faculty of medical sciences which, in addition to the ordinary subjects for the B.Sc. degree, would include pharmacology. The student would then enter the school of final or hospital studies, to which he must devote another three years. This second faculty, it is proposed, should be administered by a board consisting of four or five professors appointed by a non-hospital authority, and about ten members of the honorary staff of the hospital (recognized clinical lecturers). This body "would act under a board of medicine, whose members would be representative of all interests, national and local, and be responsible directly to the University of Wales. In this way the school of final studies would be a school of the University of Wales in exactly the same way as the corresponding school of University College, London, is a school of the University of London." The two schools—that of primary and intermediate medical studies, and that of final or hospital studies—would be expected to work in close co-operation. The signatories of the letter believe that with goodwill on both sides the present deadlock could be terminated by a fair compromise such as that outlined.

The scheme seems to have met with the approval of many of those who object to the complete separation of the Medical School from University College, Cardiff. It will no doubt come before the adjourned meeting of the Court of the University, which is to be held at Aberystwyth on July 21st and 22nd, and it seems probable that a proposal to refer the whole matter to arbitration will then be made.

THE LONDON COUNTY COUNCIL AND THE LUNACY COMMISSION REPORT.

The Mental Hospitals Committee of the London County Council submitted to the Council on July 12th a report extending to fifteen pages of the agenda on the report and recommendations of the Royal Commission on Lunacy and Mental Disorder. The committee was of opinion that the recommendations, with certain exceptions to be noted, should be accepted as a successful attempt to deal with the care and treatment of the mentally afflicted, and should be supported, with the reservation that this support is accorded subject to an adequate Exchequer grant being given in assistance. The committee, however, is not in favour, so far as the services administered by the Council are concerned, of certain of the recommendations. The first of these is that where a local authority has appointed a certifying physician this officer should be empowered to undertake the duty of visitation of persons newly received into single care. The committee considers that this would be difficult of application in a large area such as London, and that the officer would probably have plenty of work to do otherwise. It is also against the recommendation that all patients should have a statutory right to request a personal interview with a visiting commissioner or visitor, and that a notice of this right should be displayed in all institutions. This would add to the calls on the time both of commissioners and members of committees, and demands for interviews would constantly be made by the same patients. The visitors should have discretion to decide to which patients interviews should be accorded. The committee objects to the recommendation that local authorities should be required to consult the Board of Control before making an appointment to the post of medical superintendent. Such a procedure, it is felt, would create a wrong impression with regard to the relation of the Council to its staff. The recommendation that mental hospitals should in future be designed to accommodate not more than 1,000 patients is also opposed by the committee, which points out that the larger institutions can be run more economically. The committee does not consider that the Board of Control should be given general supervision, as recommended, over central research laboratories, though there would be an apparent reason for the recommendation if it included a proposal that the Government should contribute a moiety of the cost of the laboratory work. The other objections are to points of relatively minor administrative importance, and the committee asks the Council to make representations to the Government to give effect without delay to the reforms in the existing law (except for those reservations) as recommended by the Royal Commission.

VITAL STATISTICS FOR 1925.

The third and final volume of the Registrar-General's *Statistical Review of England and Wales for 1925* has now been issued, and can be obtained, price 5s., from H.M. Stationery Office, or through any bookseller. This volume contains the official analysis of the vital statistics published in Parts I (medical) and II (civil); short references to these previous parts appeared last year (October 16th, p. 709, and October 30th, p. 806). The third part completes the first quinquennium of the new series of the *Statistical Review*, and affords an opportunity of summarizing the annual figures relating to the monthly incidence of deaths from various causes in England and Wales, which were first tabulated in 1921. The statistics relating to the most important causes of death are discussed and illustrated diagrammatically. In the case of accidental burns, for example, a table of death rates from 1905 to 1925 has been constructed to show the changes that have occurred in the mortality from this cause; the reduction for the age period 2 to 15 is particularly noticeable. The effect on the diabetes mortality figures caused by the food restrictions during the war and the introduction of insulin is shown in tabular form. There were previously more deaths from this disease among males than females, but in recent years the position has been reversed, mainly owing to the increasing mortality among elder women. An analysis of cases of accidental drowning affords materials for some interesting conclusions. This cause of mortality has diminished since the commencement of the century by over a half for males and one-third for females. The greatest number of deaths occurs in July and not in August, boys and very young men being then chiefly affected. There is a sharp contrast between the mortality figures from this cause below and over the age of 25; apparently there is in most men a certain change in temperament about this age, and in this connexion comparison is made with the considered practice of the London General Omnibus Company, which does not appoint men to be drivers until they are 26, since experience has shown that in the age years 24-26 a greater sense of responsibility is acquired. Statistics indicate that boys and youths are drowned earlier in the year and older men later; the reasons for this contrast are discussed at some length.

Scotland.

WATER EXPERTS AT GLASGOW.

THE British Waterworks Association held its sixteenth annual conference at Glasgow from July 6th to 9th. The arrangements were under the efficient charge of Mr. G. Henshilwood, the Glasgow waterworks engineer. Councillor James A. Stewart, convener of Glasgow corporation water committee, was elected president, and on July 6th held a reception, which was followed by the annual dinner. On July 7th the Lord Provost held a reception; a number of interesting papers were read at the meetings, and visits were paid to places of note, including Loch Katrine, from which Glasgow derives its water supply. The president in his opening address recounted the history and development of Glasgow. The progress of the city would have been impossible but for the life-giving stream of pure water which has flowed from Loch Katrine though her veins for the past seventy years. He spoke of water waste and waste detection, the disturbance of thoroughfares for public utility purposes, and the increasing use in houses of water-driven labour-saving appliances, which will soon call for a more precise definition of what is meant by domestic supply. Dr. D. Ellis of the Royal Technical College, Glasgow, submitted a paper on "Methods of estimating pollution in water reservoirs." He remarked on the discrepancies frequently emerging between chemical

and bacteriological tests, gave an account of the iron and sulphur fungi, and explained the black layer under the sand of some tidal shores. Dr. A. S. M. Macgregor, medical officer of health, Glasgow, in a paper on "Water supplies and public health" illustrated the debt which modern urban communities owe to the water engineer from the experience of Glasgow with regard to cholera before and after the introduction of Loch Katrine water. He recalled that in some recent local Water Acts specific methods of purification had been named. Thus Chelmsford, under conditions, is to employ chlorination for the Chelmer, and Southend is to use excess lime. The development of such methods had made it possible nowadays to treat unpromising waters with success, but steps nevertheless would have to be taken at an early date for the better protection of rivers. Mr. John Stirling of Haddington, a vice-president of the Scottish Anglers' Association, discussed the question of the pollution of rivers from the administrative standpoint. Professor J. W. Gregory of Glasgow University, in a paper on the origin and distribution of underground waters, said that the view that all underground waters of use for water supply purposes are directly derived from rain was erroneous. This meteoric, or cloud-engendered, water might in general preponderate, but there were other forms which in certain situations were abundant enough to be of practical import. One of these forms was the connate water proceeding from strata which were water-charged at the time of their formation. The other form was that plutonic water which was making its way up from the deeps of the earth for the first time. It hampered the construction of the Simplon tunnel, where it broke into the excavations and scalded workmen to death, and it feeds hot springs. Professor Gregory expressed the view that the Waterworks Association would make a useful contribution to the history of the earth if it could secure a better estimate than is at present available of the total discharge from the world's hot springs. Interesting papers were communicated also on "The rating and valuation of waterworks," and on the "History of the Glasgow waterworks," by Mr. John Chisholm and Mr. J. R. Sutherland.

ANNUAL REPORT OF THE SCOTTISH BOARD OF HEALTH.*

Infectious Disease.

No case of small-pox was reported during the year, but measles was common, and diphtheria, scarlet fever, puerperal fever, cerebro-spinal fever, ophthalmia neonatorum, acute primary pneumonia, and acute influenzal pneumonia showed an increase. Nevertheless the death rate from the principal epidemic diseases for the whole of Scotland fell from 0.84 per 1,000 in 1925 to 0.63 per 1,000 in 1926, a reduction of 25 per cent. There were four outbreaks of typhus fever, with a total for the year of 27 cases. The scenes were Glasgow, Dumbarton, Stranraer, and Port Glasgow. The people in each instance were verminous. The comment is made that while the existing provisions for the cleansing of children are adequate, facilities for the cleansing of adults are practically non-existent. It is hoped to secure them by legislation. Infective jaundice occurred during the year in a Fife miner, who recovered, and in a Glasgow youth, a steel window frame maker, who died of intercurrent appendicitis. Outbreaks of jaundice in Kirkwall and Lerwick were found on investigation not to be spirochaetal, but a rat caught in Lerwick and sent to Edinburgh for examination revealed the virus of spirochaetosis. Co-operating with the health section of the League of Nations, the Board addressed a questionary to medical officers on the prevalence of influenza. The epidemic began in most parts of the country about the new year, reached its maximum in February or March, and thereafter gradually declined. The type was mild, lung complications were exceptional, and gastric implication rare. Infectivity, however, was high, and school attendance, especially in the North, was greatly interfered with.

Immunological Methods.

The Schick test of susceptibility to diphtheria and the toxoid-antitoxin immunization against the disease have both been applied on a considerable scale in the four great burghs and Aberdeen county. In Aberdeen burgh, among 1,500 persons chosen at random, the highest susceptibility was at young ages. Children from west end schools were more susceptible than those from east end schools, being less protected by fortuitous minimal infections. In scarlet fever wards exposed to infection by diphtheria, where all newcomers had been Schick-tested, cross-infection was prevented by the passive immunization of positive reactors, negative reactors being left untreated. The active immunization of the female staff of the city fever hospital, begun in 1922, has been accompanied by a reduction in the annual incidence of the disease among them from 11 to 1.6 per cent. For the protection of susceptible contacts active immunization is valueless owing to the length of the latent interval. Passive immunization is recommended in such circumstances. In Glasgow the Schick test is offered to all probationer nurses in fever hospitals, and those found susceptible are immunized. At Belvidere fever hospital the test is made use of in wards exposed to cross-infection by diphtheria. In Edinburgh Schick-testing and active immunization have been applied in 33 schools and 12 institutions. In 18 schools and 8 institutions retests have been made and any reactors further immunized. In Dundee, during 1926, among 1,387 persons Schick-tested 667 were positive. Most of the 667, together with 488 persons, mainly under 5, who had not been Schick-tested, were actively immunized. In Aberdeen county, during a period of thirteen months, 4,711 Schick tests were carried out, and 1,240 of the positive reactors received the diphtheria prophylactic.

The Dick test for susceptibility to scarlet fever, as applied in Aberdeen burgh, has, like the Schick test, revealed a higher susceptibility at young ages and among children in west end schools. It has been employed with advantage in cross-infected wards, negative reactors being allowed to remain with impunity among scarlet fever cases. The standardization of scarlatinal streptococcus toxin was worked out among medical students and others who offered themselves freely for the preliminary inoculations. Active immunization of the nursing staff of the city fever hospital has reduced the incidence of scarlet fever among them to zero, attended, however, by a concomitant rise in the prevalence of streptococcal tonsillitis. The scarlet fever prophylactic was applied to 303 school children: 257 of them, retested within four months, showed 194, or 75.6 per cent., immune. None of the 194 developed scarlet fever, though the disease was rife in the schools. Active immunization of children in households has been effectively employed in the prevention of return cases. In Glasgow research work on the Dick test has been carried out in all the city fever hospitals. In Edinburgh it has been used in 883 cases, excluding 102 in the city fever hospital; in Dundee it is employed at King's Cross fever hospital, and in Aberdeen county 5,089 tests have been applied. Lanarkshire employs both the Dick and the Schick tests at the county fever hospital in Motherwell. Concurrent active immunization against both diphtheria and scarlet fever by means of a combined prophylactic has been applied in Aberdeen burgh and Aberdeen county.

Ultra-violet Ray Therapy.

In an article devoted to ultra-violet ray therapy the radiation output of lamps is considered. The methods of estimating it are discussed and the limitations of the erythema index are noted. As between the carbon and the mercury vapour lamps, the former at present is in most frequent use in Scottish sanatoriums, but the latter is beginning to make its way. In child welfare centres the mercury lamp is most commonly employed. An estimate is presented of the value of irradiation for non-pulmonary tuberculosis, tuberculous glands, lupus, bones and joints, abdominal tuberculosis, and pulmonary tuberculosis, and the views of Scottish experts on its application in these fields are cited. Two years ago the Carnegie child welfare centre at Motherwell was the only centre in Scotland that supplied ultra-violet radiation. At the end of 1926 thirteen others had taken up the work. The view is expressed that, while there are differences of opinion as to the value of irradiation in the treatment of the deeper tuberculous lesions, its utility in the les

* Continued from page 75.

severe forms of non-pulmonary tuberculosis is unquestioned. In pulmonary cases the results have been not discouraging, but further investigation is necessary. The results of the ultra-violet rays in child welfare work fully justify the expense and labour involved in providing this method of treatment.

Housing.

The housing position in Scotland, as noted in the chapter so entitled, has hitherto not been promising. The houses necessary to meet normal requirements had been estimated at 10,000 annually, yet between 1920 and 1925 this figure had been touched in one year only, with the result that the deficit, so far from being reduced, was actually increasing. In 1926, however, by the action of local authorities and State-assisted private enterprise together, 12,474 new houses were completed. If to these be added 1,118 new steel houses and 1,338 new working-class houses erected during the year by unassisted private persons, a total of 14,930 new houses is reached, being 10,000 to meet current needs and 4,930 as the first effectual contribution towards diminishing the general shortage. It is thought that the figures for 1927 will equal or exceed those of 1926, and the Board feels able to view the housing situation now with more confidence than at any time since the State-aided schemes began. Of the 25,550 houses allocated to Scotland under the 1919 Act all but 22 are finished. In 1927-28 the estimated Exchequer contribution to the loss upon them is £969,000. Five improvement schemes for slum clearance were confirmed during the year, and improvement schemes by Glasgow, Aberdeen, Fortwilliam, and Kirkcaldy were under consideration. Reference is made to the need for regular inspection in the case of rehoused slum-dwellers. Subletting appears to be practised among them to a regrettable extent, but the charge against tenants that they use their baths as coal-bins is not sustained by inquiry.

(To be continued.)

Correspondence.

MEDICAL CHARITIES AND THE WELL-TO-DO.

SIR,—In every large centre there are a few men in the medical profession who would not miss a hundred guineas a year. Are we not justified in asking our more favoured colleagues to help those who cannot help themselves? However gifted those members may be by nature, they owe their financial position to membership of the profession and partly to the backing of their professional brethren. We ask them to help us with full confidence that they will.

Some of our members and dependants who are in receipt of help are "down and out" through no fault of their own: ill health, sudden bereavement, war, and bad luck generally. Could any better use be found for money which can be spared?

We would also remind the rank and file of the profession that the state of the funds to-day is no credit to us, and is a matter calling for prompt action by every Divisional and Branch Secretary, to ensure that every man in the Division, member or non-member, should be reminded of his duty to his profession.

Cheques, which should be drawn in favour of the B.M.A. Charities Fund, will be gratefully received and promptly acknowledged by the Medical Secretary, Dr. Cox. Subscriptions to this fund are distributed to the established medical charities after full consideration of the needs of each.—We are, etc.,

JOHN LIVINGSTON,
Honorary Secretary, North Lancashire and South Westmorland Branch.
LORTON WILSON,
Barrow, July 8th. Honorary Secretary, Furness Division.

THE RAY OF HOPE IN RADIOTHERAPY.

SIR,—To those of us who have made a personal study of radium work, both operative and non-operative, in Paris, Stockholm, and Brussels, the results which are referred to in your leading article, June 25th (p. 1150), on uterine cancer must necessarily be regarded as disappointing. In view, however, of the fact that Heyman, among others, can show better percentages of cures, it follows that radium itself as a therapeutic agent cannot be held responsible for less promising statistics from elsewhere. Heyman's statistics suggest that "inoperability" need no longer always be regarded as synonymous with "incurability." Apart from his hopeful results in the realm of gynaecology, one needs only to have followed the work of Regaud in general cancer work, of Guisez in oesophageal work, and Neuman in rectal work to feel that we have in radium indeed a very large ray of hope in the treatment of cancer.—We are, etc.,

ARTHUR B. SMITH, M.B., F.R.C.S.E.,
SYDNEY M. SMITH, M.B., Ch.B.Ed.
London, W.1, July 11th.

ADRENALINE EFFECTS AT THE MENOPAUSE.

SIR,—The BRITISH MEDICAL JOURNAL for July 2nd (p. 14) contains an ingenious theory on the causation of "flushing" at the menopause by Dr. John H. Hannan. He claims to have proved that the absence or deficiency of the internal secretion of the ovaries at the menopause allows an unrestrained action of the suprarenals, and in consequence overaction of the sympathetic system with flushing as a result.

The fact that the "flushings" of the menopause pass off within a few years, taken with the certainty that, if anything, the ovaries secrete still less of their active principle as time goes on, makes it quite evident that in itself this overaction of the adrenals will not explain the condition.

According to Dr. Hannan's theory the flushing is dependent on the overaction of the adrenals, and hence it is only possible to explain the cessation of this symptom by assuming either that the ovaries increase their internal secretion after the menopause, or that some other internal secretion is produced after the ovaries are out of action, and serves to counteract the adrenal overaction. The first possibility is absurd; for the second there is no proof. Hence there must be some other factor to account for the "flushings" of the menopause.—I am, etc.,

Shrewsbury, July 4th. H. D. WYSE, M.B.Lond.

SIR,—Dr. Hannan, in his communication to the JOURNAL (July 2nd, p. 14), remarks that the pregnant woman is extremely tolerant to chloroform, and suggests that this may be a result of increased ovarian activity.

I would like to suggest another factor contributing to this tolerance. The ordinary patient about to undergo an operation is in a state of relative sympatheticotonia. His mental state is in most cases one of anxiety, and no doubt a considerable secretion of adrenaline is taking place. On comparing this with the state of mind of the parturient woman, who welcomes the arrival of the anaesthetist with a sigh of relief, believing that the worst of her troubles are over, one can understand that the suprarenals are no longer stimulated by the emotion of fear, and the danger of syncope becomes remote.—I am, etc.,

FRANK BODMAN, M.B., M.R.C.S.
Clifton, Bristol, July 7th.

DRUGS FOR SLEEPLESSNESS.

SIR,—The fact that drugs of the barbitone series are valuable hypnotics cannot be gainsaid, but their virtues should not blind us to their vices. There is no doubt that many patients who have been relieved by them do come to rely on the drugs and are fearful of omitting them.

I have seen two patients, one semi-unconscious and the other deeply comatose from overdose of barbitone. One, a lady, was a definite addict and obtained supplies without the knowledge of her family or of the doctor with whom I saw her in consultation. I understand that in both cases the habit was acquired as the result of doses quite legitimately prescribed.

For this reason I always urge that the members of this group be used with circumspection and that if a prescription be given it should be marked "not to be repeated."—I am, etc.,

London, W.1, July 4th. P. HAMILL.

SIR,—I have been greatly interested in the correspondence in your columns on the toxicity of certain hypnotic drugs. It is so rarely that I have occasion to prescribe anything of the sort that the two following cases, which recently came under my observation, have made all the greater impression on me.

In the first case, an otherwise healthy young woman, who had suffered for many months from insomnia, for which she had had no previous treatment, was recommended veronal. Two doses only were sufficient to cause toxic symptoms of such severity that the patient was thoroughly alarmed and refused to take any more.

In the second case dial was given, and in this case one dose was sufficient to cause toxic symptoms, which were even more severe than those seen in the first patient. In both cases the symptoms were those described in the original paper—muscular weakness and fatigue—in the second case amounting to a temporary paralysis, coldness of the extremities, a rapid and feeble pulse, a subnormal temperature, and a marked degree of drowsiness and mental confusion.

I may say that I have been very chary of prescribing the barbitone derivatives since meeting these two cases.—I am, etc.,

London, W.1, July 4th. D. WINIFRED HALL.

EARLY SYMPTOMS IN DISEASES OF THE BREAST.

SIR,—In my lecture on early symptoms in diseases of the breast, which is published in your issue of last week (July 9th, p. 47), I have unintentionally somewhat misrepresented the notes in the Ministry of Health report on the incidence of pain in cancer. In the report (Public Health and Medical Subjects, No. 32 of the Ministry of Health series) dealing with the antecedent histories of 503 patients who had been operated upon for cancer of the breast, and all of whom were carefully questioned upon this and other points, no fewer than 83, or 17.7 per cent., gave pain as the first symptom, that is before any lump was palpable. The report on these cases, which was compiled by Dr. Janet Lane-Claypon, points out the importance of not relaxing attention until "either the pain has subsided, leaving a normal breast, or until operative measures have been decided upon." The figures support my own conviction, which I expressed in my lecture.

I hope Dr. Lane-Claypon will accept my apologies and appreciate everyone's admiration for her perseverance in establishing the facts of her important work.—I am, etc.,

London, W.1, July 11th. G. LENTHAL CHEATLE.

MEDICAL SECRECY.

SIR,—Since writing the paper I read to the Medico-Legal Society on June 23rd, an abstract of which was published in the BRITISH MEDICAL JOURNAL of July 2nd (p. 17), my attention has been directed by Sir William Collins to the regulations regarding venereal disease clinics. The Public Health Venereal Disease Regulations, dated July 12th, 1916, issued by the Local Government Board, predecessor of the Ministry of Health, to local authorities, contain the following instruction:

Article II (2). All information obtained in regard to any person treated under a scheme approved in pursuance of this article shall be regarded as confidential.

A memorandum was also issued by the Local Government Board which contained the following statements:

"It is essential that each patient attending for diagnosis or treatment should be assured that, although his home address will be kept confidentially for reference, it will never be communicated to others. The desirability of having the home address in order to be able to arrange subsequent appointments should be explained to the patient."

"At an early visit the patient's name and home address should be noted confidentially and kept separate from his clinical record. It should be explained to the patient that the home address will under no circumstances be used except for confidential communications to the patient himself respecting his treatment."

Obviously these provisions create special conditions regarding patients attending venereal disease clinics, and may impose legal obligations of secrecy upon the local authority and its medical and other servants. How the regulations would affect disclosure in the witness-box is doubtful. They purport to be made under statutory powers. Consequently if the regulations were *intra vires* it might well be contended that statutory secrecy had been established. But however this may be, the ethical position is plain, both for doctors and laymen engaged in venereal disease clinical work.—I am, etc.,

London, S.W., July 5th. RIDDELL.

Obituary.

JAMES WALKER DAWSON, M.D., D.Sc., F.R.C.P.E., F.R.C.S.E.,

Histologist in the Laboratory of the Royal College of Physicians, Edinburgh.

DR. J. W. DAWSON died, on June 26th, at his residence in Edinburgh after a long illness. He had not enjoyed robust health for many years, and for some months his condition had been a matter of concern to his numerous friends. Dr. Dawson was born in 1870 in India, and was educated at the Edinburgh Institution. He commenced the study of medicine at Edinburgh University in 1888, but before his course was completed he suffered from a serious breakdown, and the next eleven years of his life were spent abroad, mainly in India and New Zealand, where for a time he was engaged in sheep-farming. In 1903 he was able to resume the study of medicine and graduated M.B., C.M. in the following year. Immediately after graduation he devoted himself to research work, which held special attractions for him, and several years were spent, chiefly in the laboratory of the Royal College of Physicians, working in collaboration with the late Dr. Alexander Bruce. In 1910 the Syme Fellowship in Surgery was awarded to him and in 1911 he graduated M.D., receiving a gold medal for his thesis dealing with "Studies on Inflammation." He was the author of an elaborate monograph on the histology of disseminated sclerosis, published in the *Transactions* of the Royal Society of Edinburgh in 1915. This work threw much light upon the minute changes that occur in this obscure disease, and the same subject was the basis of a thesis for the D.Sc. degree, which he took in 1916. Other contributions by him to pathological literature included papers on multiple neuromata of the central nervous system, on the lymphatics of the central nervous system, on generalized osteitis fibrosa (in collaboration with Mr. J. W. Struthers), published in the *Edinburgh Medical Journal* in 1923; a paper on melanomata; and one on syringomyelia.

During the war (1915-19) Dr. Dawson was occupied in teaching pathology in connexion with the class in Edinburgh University and in the Royal Infirmary. Many offers of appointments both at home and abroad came to him, but were regretfully declined on grounds of health, and he preferred to spend his time in quiet work in the laboratory of the Royal College of Physicians.

He became a Fellow of the Royal College of Physicians of Edinburgh in 1924. For many years he acted as histological expert in the laboratory of the College, and here his opinion as to the pathological nature of tumours and other tissues was held in the highest esteem by his colleagues. In this capacity his place will be very difficult to fill, because from long experience and the meticulous care that he devoted to microscopic work, he had attained great expertness in the diagnosis of doubtful cases of malignancy and on many other matters. For some months before his death Dr. Dawson had been engaged in preparing the three Morison Lectures, which he had been invited to deliver before the Royal College of Physicians. Although it is understood that these, which dealt with recent advances in knowledge of the minute structure of the nervous system, were almost ready for delivery, it will be a loss to scientific medicine that he was prevented from completing and giving them. Dr. Dawson was a man of modest and retiring disposition, who enjoyed in a very high measure the affection and respect of his professional colleagues. His literary and scientific interests were very wide outside of the subject which specially attracted his attention. In 1924 he published in the *Edinburgh Medical Journal* an essay entitled "The Spirit of Leisure and the Spirit of Work," which described in an arresting manner the quiet pleasure to be derived from a simple though purposeful life. All that he did was characterized by the

most faithful accuracy of detail, as well as by breadth of knowledge and philosophic spirit. His scientific work had made him well known to the workers of many lands, by whom, as well as by those to whom he was more intimately known, he will be greatly missed. Dr. Dawson is survived by a widow. The memorial service was held on June 29th in Old St. Paul's Church, at which the Rev. Canon Lawrie, D.D., paid a tribute to Dr. Dawson's eminent combination of intellectual and spiritual qualities. The interment took place at Morningside Cemetery and was attended by a large assembly of professional colleagues.

F. B. JESSETT, F.R.C.S.,
Consulting Surgeon, Cancer Hospital, London.

On June 17th there died at Fleet, in Hampshire, a surgeon once well known in London, Mr. Frederick Bowreman Jessett, who at one time resided in Brook Street. Mr. Jessett was 89 years of age. He was educated at Marlborough and at University College, London, and became a member of the Royal College of Surgeons as long ago as 1858. In 1874 he was made a Fellow of the College. He was surgeon to the Royal General Dispensary and at the time of his death was consulting surgeon to the London Cancer Hospital, the Gordon Hospital for Fistula, and the Fleet Cottage Hospital. He also founded the Erith Cottage Hospital. In 1893 and 1906 Mr. Jessett was president of the British Gynaecological Society; he was also a member of the Obstetrical Section of the Royal Society of Medicine.

After his retirement to Hampshire Mr. Jessett took an interest in local affairs, and was a member of the Hartley Wintney Rural District Council and Board of Guardians. For many years he carried on valuable work at the Fleet Hospital. He wrote several books on cancer of various internal organs. Mr. Jessett had been an invalid for a long time. His wife died in 1913. He leaves a son and three daughters.

COLONEL JOHN SMYTH, I.M.S.,
Late Professor of Pathology, Madras Medical College.

We record with regret the death of Colonel John Smyth, I.M.S., at Clifton, on July 2nd, at the age of 69. He was born in county Monaghan and educated at Queen's College, Belfast, graduating M.D. and M.Ch. in the Royal University of Ireland in 1879. Two years later he joined the Indian Medical Service and was sent to the Madras Presidency, his first few years being spent on military duty. He served with the Indian contingent in the Sudan campaign of 1885, being present at Suakim, the actions of Hashim and Tofrek, and the siege of Tamai, where he was wounded. He received the Egyptian medal with two clasps, and the Khedive's bronze star. At the end of that year he was transferred to civil employment; he held the post of resident surgeon at the Madras General Hospital, and was professor of pathology at Madras Medical College for some years. In 1897 he was appointed surgeon to the Maharajah of Mysore, and in 1904 he became sanitary commissioner and inspector-general of jails in Mysore. In 1908 he was sent to Japan to study sanitary methods, and in the following year he published an account of applied sanitation in that country. He was promoted colonel in 1911 and for a time held the appointment of surgeon-general of Madras; in 1913 he became A.D.M.S. in Secunderabad, which appointment he retained until his retirement in 1919. He was an honorary surgeon to the Viceroy, and in February, 1916, was appointed honorary physician to the King.

Colonel Smyth married twice, his first wife, by whom he had a son and four daughters, being a daughter of the late Sir Thomas Crawford, K.C.B. He is survived by his second wife, a daughter of the late Mr. Charles Murton of Blackheath. He was laid to rest in the Canford Cemetery, Bristol, on July 5th.

We regret to record the sudden death of Dr. PALEMON BEST on June 13th at St. Ives, Cornwall, where he was born in 1868. He received his medical education at University College, London, where he was a zealous student and came under the influence of several eminent teachers in medicine and surgery, including the late Dr. Vivian Poore, Mr. Marcus Beck, and Sir Victor Horsley. He obtained, in 1894, the diplomas of M.R.C.S., L.R.C.P., and L.S.A. After a short but strenuous period in a large colliery practice in Yorkshire, he settled at St. Ives, Cornwall, where he practised for nearly thirty years. He was greatly attached to the town and much interested in all local antiquities. He held the appointments of medical officer to the Admiralty and Poor Law Guardians, as well as public vaccinator. A quiet, undemonstrative, but deep sympathy with all sufferers was one of Dr. Best's notable characteristics. On many occasions it took a very practical form, and this, together with a conscientious devotion to duty, made him beloved by his patients. Of a reserved disposition, he had high ideals in connexion with his vocation, and quietly, with an absence of display, acted up to them. His health had been bad since the war, at the outbreak of which he was captain in the St. Ives Company of the R.G.A. After being stationed at Falmouth for some time he was transferred to the R.A.M.C.(T.) with the rank of major. Until the last few years Dr. Best was a good horseman and fearless rider, and followed the Western Hounds. He was for many years a member of the British Medical Association. The funeral at St. Ives was largely attended.

THE LATE MR. STANMORE MORTON.—Lieut.-Colonel A. E. J. Lister, F.R.C.S., late professor of ophthalmology, King George's Medical College, Lucknow, sends us a note about Mr. Stanmore Morton's skill as an operator. In the course of his remarks Colonel Lister writes:

> In the obituary notice of the late Mr. Stanford Morton (April 23rd, 1927, p. 780) no mention is made of his great technical skill as an operator. Yet it was for this he was most highly thought of among the students of my day at Moorfields. He was probably second to none in Europe when at his best. He also was a great teacher, and in his declining years took pleasure in the fact that he had taught operative surgery to some of the now leading members of the profession. Speaking to me of one of these, a few months ago, Morton said, "I fear he has now far outstripped his teacher," and recalled how he came back after his first course and asked Morton to give him another. Morton said he could teach him nothing more. "Yes, you can," he said; "I want to learn your trick of opening the lens capsule with the point of the knife as you make the incision." This led Morton to tell me how, one day when he was operating at Moorfields, a certain well known member of the staff—long since dead—walked into the theatre, while he was doing a cataract operation. He did not notice that Morton touched the capsule with the point of the knife as he made his incision. When Morton had finished the operation the other (who was the leader of the rival faction at Moorfields which existed in those days) turned to him angrily and said, "You did not open the capsule." "Oh, yes, I did," said Morton, "with the point of the knife as I went through." I should have called attention to this before, but wished to take the opinion of one or two of the leaders of the profession in this specialty before doing so. They agree with me.

Universities and Colleges.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.
ELECTION TO THE COUNCIL.

On July 7th three Fellows were elected into the Council to fill the vacancies occasioned by the retirement in rotation of Sir John Bland-Sutton, Sir Cuthbert Wallace, and Mr. Thelwall Thomas. The result of the poll was as follows:

	Votes.	Plumpers.
Sir CUTHBERT SIDNEY WALLACE, K.C.M.G., C.B.	489	14
WILLIAM THELWALL THOMAS, M.B.E.	475	9
HUGH LETT, C.B.E.	366	46
Leonard Parker Gamgee	344	27
Charles Coley Choyce, C.M.G., C.B.E.	328	15
Sir Crisp English, K.C.M.G.	314	47
John Percy Lockhart Mummery	224	5
Herbert John Paterson, C.B.E.	158	6
Herbert William Carson	153	5

In all, 1,118 Fellows voted, including 175 Fellows resident out of the United Kingdom: in addition, 3 votes were found to be invalid. In accordance with the provisions of the Charter of 1926, this year, for the first time, there was no special meeting of Fellows for the election, nor was it possible for Fellows to record their votes in person at the poll.

Mr. Lett becomes substitute Member of Council for Sir John Bland-Sutton until July, 1934.

UNIVERSITY OF OXFORD.

Radcliffe Scholarship in Pharmacology.

THE Master and Fellows of University College announce that, on the nomination of the Professor of Pharmacology, they have elected John Hugh Bruce Beal, Scholar of University College, to the Radcliffe Scholarship in Pharmacology, 1927.

The following award of scholarships and prizes in the School of Medicine are announced:—*Theodore Williams Scholarship in Physiology*: A. L. Jacobs and A. W. D. Leishman (equal). *Theodore Williams Scholarship in Human Anatomy*: F. M. Trefusis and M. W. C. Oldfield (equal). *Radcliffe Scholarship in Pharmacology*: J. H. B. Beal. *Welsh Memorial Prize for Anatomical Drawing*: R. Pakenham Walsh.

The following candidates have been approved at the examination indicated:

B.M., B.CH.—*Materia Medica*: R. E. Adam, G. Ashton, J. H. B. Beal, J. A. Brown, B. R. Caygill, J. L. Clapham, F. R. Crookes, W. T. Dawson, R. C. Garman, A. J. Gibbs, J. M. Gibson, T. N. Gledhill, W. H. Greany, R. M. J. Harper, H. M. Harris, A. L. Jacobs, J. M. Lees, W. H. McMenemey, G. B. Malone-Lee, W. H. Owles, J. H. Peel, J. G. Reid, C. R. Salkeld, D. C. Shields, C. Wilson, Annie D. M. Adams. *Pathology*: H. S. Atkinson, M. V. Bhajekar, B. R. Caygill, R. T. V. Clarke, T. L. Davies, S. B. Davis, A. J. Gibbs, H. P. Gilding, J. L. Glover, G. G. Hill, Q. St. L. Myles, R. C. Probyn-Williams, J. G. Reid, S. Segal, D. C. Shields, E. E. Swaby, W. J. Walter, Florence H. Johnson, Caroline E. MacNeice, Joyce Wright, *Forensic Medicine and Public Hygiene*: D. H. Brinton, J. A. Brown, E. N. Butler, T. L. Davies, S. B. Davis, J. L. Glover, G. G. Hill, A. P. Kingsley, R. L. P. Peregrine, Rosalind V. Carruthers, Irene M. Titcomb. *Obstetrics*: H. W. Allen, E. N. Butler, C. Charleson, P. F. Cluver, C. L. Cope, W. N. Dickenson, J. L. Glover, R. C. Probyn-Williams, J. W. Pugh, Rosalind V. Carruthers, Irene M. Titcomb.

UNIVERSITY OF LONDON.

Recognition of Teachers.

MR. ASHLEY S. DALY has been recognized as a teacher of anaesthetics at the London Hospital Medical College, and Mr. Russell J. Reynolds as a teacher of radiology at the Charing Cross Hospital Medical School.

The Ernest Starling Laboratory.

The University College Committee have resolved that the laboratory hitherto known as the Professors' Laboratory, in the Department of Physiology and Biochemistry, shall henceforth be known as the Ernest Starling Laboratory.

Brown Animal Sanatory Institution.

The annual report of the superintendent of the Brown Animal Sanatory Institution records that during 1926 the number of animals brought to the institution was 3,088. The five lectures required to be given under the will of the late Mr. Brown were delivered by the superintendent at the Royal College of Surgeons during December, 1926; the subject selected was the influence of environment on bacteria. Experiments on a variety of subjects, including human, bovine, and avian tubercle bacilli and gall stone experiments, have been conducted in the laboratories by workers from other institutions. The superintendent has continued his work on ultramicroscopic viruses. It is hoped to publish during 1927 the results of experiments on the essential substance "Vitamin" necessary for the growth of Johne's bacilli. The appointment of Mr. F. W. Twort as superintendent of the institution has been continued for one year.

Graham Medical Research Laboratory.

The annual report of the Graham Legacy Committee for the year ending August 31st, 1926, gives particulars of the general progress of the laboratory, the researches carried out, and the amount of grants made to workers. Professor A. E. Boycott, F.R.S., has been reappointed director of the laboratory for one year from September 1st.

William Julius Mickle Fellowship.

Applications for the William Julius Mickle Fellowship must reach the Principal Officer of the University not later than first post on October 1st. The Fellowship is of the value of at least £200, and is awarded annually to the man or woman who, being resident in London and a graduate of the University, has, in the opinion of the Senate, done most to advance medical art or science within the preceding five years, and has therein shown conspicuous merit. Further particulars may be obtained on application to the Principal Officer.

UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL.

Goldsmid Entrance Exhibitions have been awarded to J. H. Bentley (Downing College, Cambridge) and to S. Scher (University of Cape Town).

UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examination indicated:

M.D.—W. Emdin, S. M. Katz, J. A. Scott.

M.B., CH.B. (*with Honours*).—[1 3] W. S. Brindle, [1 3] J. McHugh, [1 3] S. P. Meadows, [1 3] A. D. Polonsky, [2 4] J. K. Cameron, [2 5] A. Dodd, [2 3] P. H. Whitaker, [2 6] R. L. Wynne. *Part III*: T. Blezard, J. H. Boultbee, H. C. Calvey, K. M. Cobban, E. Cohen, F. R. Craddock, W. J. Eastwood, L. S. Goldman, J. G. Hattingh, H. E. Hughes-Davies, E. D. Irvine, O. V. Jones, Theresa J. Lee, J. L. Lewis, F. E. Lomas, J. W. Melville, E. P. Moloney, Edna Morris, C. Rigby, N. W. Riley, J. B. Rushton, Alfreda H. Slater, V. J. M. Taylor, J. P. Thomas, D. P. de Villiers, A. J. Walsh, E. N. Wardle. *Part I*: A. E. Adams, S. W. Adler, A. E. Carrol, E. Cook, J. E. Jones, N. W. Roberts, G. A. Talwrn-Jones, A. L. Williams. *Part II*: S. Alstead, E. T. Bates, [7] R. K. Bowes, J. H. St. B. Crosby, [7] T. B. Davie, R. Doyle, H. R. Dugdale, J. P. Flanagan, J. H. Follows, Agnes G. Gillespie, R. G. Gornall, E. W. Jones, Mary G. Jones, W. E. J. Jones, N. R. Lawrie, J. M. Leggate, H. Leiper, J. S. Mather, C. T. Mercer, Winifred O'Callaghan, H. Paterson, E. L. Rubin, H. W. Smith, G. G. Warburton, F. J. Welton.

D.P.H.—Eudora V. Beatty, Helen S. H. Brown, M. S. Grutn, R. C. Gubbins, Isabel McKee.

DIPLOMA IN TROPICAL HYGIENE.—C. P. Allen, G. A. Dunlop, J. Harkness, R. Hay, Kathleen Hyslop, J. Macdonald, A. J. Murray, H. M. Nevin, R. Walkingshaw.

[1] First class honours.
[2] Second-class honours.
[3] Distinction in surgery, obstetrics, and gynaecology.
[4] Distinction in surgery.
[5] Distinction in obstetrics and gynaecology.
[6] Distinction in medicine.
[7] Distinction in forensic medicine and toxicology.

VICTORIA UNIVERSITY OF MANCHESTER.

MR. D. LINDLEY SEWELL has been elected a member of the Board of Faculty of Medicine.

The following candidates have been approved at the examination indicated:

FINAL M.B. AND CH.B.—[1] K. H. Watkins, Dorothy Arning, H. Arstall, A. H. Baker, R. H. Barnes, R. H. Blackburn, Dorothy M. Bradley, H. J. Brennan, J. W. Brooks, Lillie M. Burton, Louie J. Burton, Muriel M. Edwards, J. S. Goller, A. Hancock, Z. Hanna, [2] G. Metcalfe, R. Newton, G. L. Normington, R. P. Osborne, H. A. Palmer, L. C. Peringuey, [2] G. H. Racklyeft, Norah Regan, M. Robinson, Eleanor B. Schill, A. Thomas, R. H. Tootill, H. Townley, Vera Urmson, F. F. Waddy, G. R. Walker, Josephine Walmsley. *Forensic Medicine*: S. K. Appleton, Doris Bernard, R. Edmondson, J. H. Jones. *Hygiene and Preventive Medicine*: R. S. Abraham, S. K. Appleton. *Obstetrics and Surgery*: S. K. Appleton, H. J. Brennan, E. H. Brooks, Agnes M. Buckley, E. Cretney, E. B. Davies, Mary G. Davies, Dorothy Guest, G. B. Hardman, Amy H. Herbert, J. A. Longworth, Jean M. Marshall, J. W. Murray, J. R. Nuttall, J. F. O'Grady, S. L. Rowley, Lucy Stokoe, A. Thomas, R. H. Tootill, Vera Urmson, J. Vine, G. R. Walker. *Obstetrics*: D. E. Francis, Kathleen McGowan.

DIPLOMA IN PSYCHOLOGICAL MEDICINE.—Mary C. Luff.

DIPLOMA IN BACTERIOLOGY.—N. A. Arnold, Phyllis M. Congdon, Margaret Pownall, W. Smith.

D.P.H. (*Part I*).—W. C. V. Brothwood, J. Cumming, Miriam Florentin, T. S. Hanlin, H. Harrison, Fanny Howe, M. V. Menon, T. Pierson, Marjorie Reekie, S. P. Wilson.

[1] Second-class honours and distinction in medicine.
[2] Distinction in forensic medicine.

Chair of Bacteriology.

Dr. H. B. Maitland has been appointed Professor of Bacteriology and Director of the Department of Bacteriology and Preventive Medicine, in succession to Professor W. W. C. Topley, who has joined the staff of the School of Hygiene and Tropical Medicine in London. Dr. Maitland graduated in medicine and surgery in the University of Toronto in 1916 and obtained the degree of M.D. by thesis in 1922. He took the diplomas of M.R.C.S.Eng., L.R.C.P.Lond. in 1918. From 1917 to the end of 1918 he served in the Royal Navy as surgeon lieutenant; from 1919 to 1921 was lecturer in bacteriology in the University of Toronto, and in 1921 became Associate Professor. Early in 1925 he was appointed to assist in the research upon foot-and-mouth disease, and later took charge of the investigations done for the Commission; subsequently he became a member of the staff of the Lister Institute.

UNIVERSITY OF SHEFFIELD.

THE following candidates have been approved at the examination indicated:

M.D.—H. N. Green.

FINAL M.B., CH.B.—W. L. Rowe (with second-class honours), Dorothy Brown, B. Graham, D. H. Lockwood, P. G. Preston, W. G. P. Wells.

UNIVERSITY OF GLASGOW.

A GRADUATION ceremony was held on July 1st, when the following medical degree and prizes were conferred:

M.D.—T. W. Hill.

Harry Stewart Hutchison Prize of £50 for writing or writings embodying original research work in a branch of medical science relating to children.—R. Cruickshank (*proxime accessit*), Mary M. Stevenson.

Macewen Medal in Surgery.—Marion W. Gray.

UNIVERSITY OF ST. ANDREWS.

THE June graduation ceremony of the University of St. Andrews was held in the University Library Hall on June 28th, when the following degrees, diplomas, and prizes were conferred:

D.Sc.—William S. Duke Elder, M.B., Ch.B.

M.D.—William M. Cumming, Neil I. Smith.

M.B., CH.B.—B. W. Anderson, Catherine M'L. Blackstock, J. A. Blair, R. C. Burgess, S. A. Carlton, Anne F. Crow, N. Donnelly, G. L. Henderson, J. J. Hugo, R. N. Kinnison, W. H. Morton, G. O'Brien, Anna M. Pirie.

D.P.H.—E. N. Reid, Isabella Sim.

MacEwan Prize (*Surgery*).—R. N. Kinnison.

Rutherford Gold Medal (for M.D. Thesis).—W. M. Cumming.

UNIVERSITY OF DUBLIN.

AT the later summer commencements, held in the theatre of Trinity College on June 28th, the following Degrees and Licences in Medicine were conferred:

M.D.—J. M. B. de Wet, F. W. G. Smith.
M.B., B.CH., B.A.O.—S. Behr, J. O. Bennett, D. Blewitt, P. Brangan, Norah W. Brown, T. C. M. Corbet, W. P. Culbertson, S. B. Dalrymple, C. L. Day, S. R. Elmes, Norah E. Fenton, P. M. Garry, M. Gerber, A. R. Gray, M. FitzG. N. Griffin, R. S. F. Hennessey, M. Hoffman, W. F. Lane, L. R. S. MacFarlane, N. J. U. Mather, T. J. Millin, A. N. B Odbert, J. J. O'Dwyer, R. A. Q. O'Meara, T. J. O'Reilly, D. B. O'Sullivan-Beare, S. D. K. Roberts, R. W. T. H. Stewart, H. C. Weir, R. D. Whiteacre, C. F. Cope.
Licentiate in Medicine and Surgery and Art of Obstetrics.—J. A. K. FitzGerald.

SCHOOL OF PHYSIC, TRINITY COLLEGE.

The following candidates have been approved at the examinations indicated:

FINAL M.B. (*Part I, Materia Medica and Therapeutics; Medical Jurisprudence and Hygiene; Pathology and Bacteriology*).—*F. G. Stewart, Nora A. Stack, J. Beggs, Josephine M. Enright, Marie M. E. Lea-Wilson, L. L. Griffiths, E. S. Adderley, E. F. St. J. Lyburn, P. O'Shea, G. B. Thrift, W. A. Y. Knight, J. Willoughby, E. C. Hicks, J. T. M'Ginn. (*Part II, Medicine*): *T. J. Millin, S. Behr, R. R. Woods, T. C. M Corbet, G. M. Smith, P. M. Garry, T. J. O'Reilly, J. A. K. FitzGerald, R. M. Moore, G. M'Donald, L. R. S. MacFarlane, Ethel M. Weir, I. Isaacson, J. K. Harper, W. P. Culbertson, A. R. Gray, C. E. G. Nunns, I. le Roux. (*Surgery*): *T. J. Millin, T. C. M. Corbet, W. F. Lane, R. A. Q. O'Meara, M. F. N. Griffin, R. S. F. Hennessey, M. Gerber, T. J. O'Reilly, Norah W. Brown, M. Hoffman, R. D. Whiteacre, P. Brangan, C. L. Day, N. J. U. Mather, G. Q Chance, D. B. O'Sullivan-Beare, S. R. Elmes, S. D. K. Roberts, R. W. T. H. Stewart, C. F. Cope, D. Blewitt, J. O. Bennett, S B. Dalrymple, E. M. Gamble, H. C. Weir, L. R. S. MacFarlane, W. P. Culbertson, Norah E. Fenton, J. J. FitzGerald, J. A. K. FitzGerald. (*Midwifery*): *W. J. E. Jessop, *E. K. Malone, *K. Watson, D. M'M. Carson, E. du P. Meiring, J. J. O'Dwyer, D. S. P. Wilson, R. D. Whiteacre, L. R. H. Keatinge, N. Barstein.

* Passed on high marks.

QUEEN'S UNIVERSITY, BELFAST.

THE following candidates have been approved at the examination indicated:

M.CH.—*R. L. Dodds and *I. J. Fraser.
M.D.—G. V. Allen, †J. Beattie, †Myra K. Beattie, J. H. Jamison, W. Sloan.
M.B., B.CH., B.A.O.—‡J. P. Canavan, ‡S. Nevin, §D. Cumming, §K. Forsythe, §G. P. M'Cullagh, §C. G. Maxwell, §J. R. Miller, §A. R. Montgomery, §M. L. Poston, Letitia M. Allen, C. T. Andrews, E. C. Blake, Sarah Blumberg, Ella Chambers, H. L. Cochrane, F. J. Copeland, Wilhelmina L. Devlin, C. Dowling, S. H. Faulkener, J. H. P. Giff, Gertrude M. Glenn, J. M. Gray, F. Henry, A. W. Hill, D. Hill, W. S. O. Hoy, M. J. R. Hyland, Clara F. Leonard, H. A. Logan, L. A. Lyle, S. N. Lytle, H. I. M'Clure, W. E. M'Ilroy, J. S. M'Kelvey, J. G. H. M'Nabb, J. B. Marinan, A. M'C. D. Monypeny, J. M. Murray, W. J. Patterson, T. Purce, C. R. C. Rainsford, E. P. G. Ritchie, Mary M. M'C. Robson, Martha W. Rodgers, G. Smith, H. R. Sparrow, H. H. Una', J. Wellwood, H. Wilson, T. Wilson, J. Witherow.

* With commendation. † Gold medal. ‡ First-class honours. § Second-class honours.

Summer Graduation Ceremony.

The graduation ceremony of the University was held on July 8th and honorary degrees were conferred on several well known medical men; Sir Almroth Wright, F.R.S., received that of LL.D., and Sir Berkeley Moynihan, Bt., and Professor G. Elliot Smith, F.R.S., that of honorary D.Sc. Seven candidates were successful in obtaining the M.D. and fifty-three that of M.B., of whom eight were women.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT the monthly business meeting, held on July 1st, the following were admitted to the Licences in Medicine and Midwifery of the College:

D. S. Austin, J. Bourke, M. Clancy, Anna J. Conboy, H. Copeman, A. J. Devlin, J. J. Devlin, G. R. Fetherston, J. E. Flynn, M. J. Freeman, J. Keena, F. R. Lundie, V. T. J. Lynch, Nora B. Maher, R. Murray, Dora K. M'Cook, T. J. M'Curdy, G. T. O'Brien, C. P. O'Toole, P. J. Rafferty, W. Shannon, J. Tackney.

Bernard Francis Hogan, L.R.C.P. and S.I., has passed the examination for the Diploma in Psychological Medicine of the College.

The Registrar reported that, as no opposition has been offered by the Irish Free State Government to the new regulations for Fellowship and Membership, these regulations came into force on June 1st.

Four nominations for the Fellowship were handed in for the elections to take place on St. Luke's Day, October 18th.

The Reuben Harvey Memorial Prize (1927) has been awarded to Dr. R. A. Q. O'Meara for his essay on staphylohaemolysin.

MANCHESTER ROYAL INFIRMARY.

THE James Bathgate Dickinson Scholarships have been awarded as follows: *Travelling Research Scholarship in Medicine*: R. W. Fairbrother, M.B., Ch.B. *Scholarship in Pathology*: F. H. Smirk, M.D. *Scholarship in Anatomy*: F. Livesey, M.B., Ch.B.

Medical Notes in Parliament.

[FROM OUR PARLIAMENTARY CORRESPONDENT.]

THE House of Commons will probably rise for the Long Recess on July 30th. This week it has discussed Estimates for the Foreign Office, Mines Department, Ministry of Pensions, and the Home Office. The House of Lords has been in Committee on the Trade Disputes and Trade Unions Bill. In the House of Lords, on July 12th, Lord Lovat introduced the Medical and Dentists Acts Amendment Bill, which was read a first time. The Estimates Committee has presented to the House of Commons a report which announces, *inter alia*, that a common form of cost accounting is being tried in one hospital of each of the three services, and that the two Air Force hospitals in Baghdad have been amalgamated.

India.

On July 8th, when the House of Commons went into Committee on the India Office Estimates, Earl Winterton made his annual statement on Indian administration. He remarked that, though the House of Commons still had a large measure of responsibility for the administration of some 320,000,000 people in India, local government in the British sense was in the hands of Indians, elected without British control. The health and welfare of India depended greatly on these municipal and local authorities. The rate of progress of education rested entirely on Indians themselves. In India caste, child marriage, and the prohibition of the slaughter of animals, even if old and diseased, made comparison with Western standards and ideals fallacious, but many of these matters of religious custom had been under the fierce scrutiny of Indians themselves, and the possibility of changes was discernible. The improvement in the conditions of labour made by legislation during the past few years in India had been considerable, and had synchronized with the prominent part taken by India in the International Labour Organization. India had ratified eight of the Conventions adopted by the various labour conferences, including the first Washington Convention. In Calcutta the Improvement Trust had erected houses for the middle classes, Anglo-Indians, and the poor respectively, and had spent about £100,000 in acquiring sites for open spaces. In Bombay there was a concerted plan to increase the amenities of the city and to improve the health and happiness of its inhabitants by great and far-reaching schemes of social betterment. The contrast between the new chawls built by the Bombay Development Department and the appalling old slums was such as he had seen nowhere else. Roads had been driven through slums and open spaces provided. Returns from employers throughout India, though incomplete, showed that, excluding some railways and Government concerns, 348,000 workers were housed by employers. Over 700 employers provided doctors and dispensaries, and about 300 maintained schools for employees and their children. The death rate of young children was high in India, but in the cities mentioned it had steadily declined. Other factors affected the infant death rate besides housing and economic conditions—such factors as the marriage age. This was a question for Indians themselves to deal with. Good work had been done by the Social Service League in Bombay, run very largely by Indians. A great deal was being done by dispensaries for the supply of medicines. In the agricultural districts of Bengal there were antimalarial societies, which were doing very valuable work. The improvement noted last year in recruitment for the services had gone on steadily.

Mr. Tom Shaw said that in India, after 150 years of British rule, human life was still cheap and housing conditions very bad.

Sir Richard Luce raised the question of the Indian Medical Service. He gathered that the long negotiations as to the future of the service were almost completed. The present recruiting of that service was unsatisfactory. From figures Earl Winterton had supplied to him it appeared that in five years the loss of British medical officers in the Indian Medical Service had been 61. The present strength was 489 British members of the service and 158 Indians; to that must be added 138 temporary medical officers, nearly all Indian. That was a proportion of 1.6 British to 1 Indian, whereas the proportion laid down for the efficient working of the Indian Medical Service was two British to one Indian officer. One reason for fixing that proportion was that members of the Indian Civil Service and their families should have British medical officers attend them when they were sick. The other requirement was that there should be a sufficient reserve of British officers for the Indian army. That reserve had been called upon to its last ounce in the great war. A sufficient proportion of British medical officers in the Indian army was essential to a proper efficiency in that service. At present not only was the proportion of British to Indian officers too low, but it was rapidly diminishing. He could not say what might cause the obvious unpopularity of the Indian Medical Service. There was at present an unwillingness of young doctors to go into any service abroad. Whether the spirit of adventure had been exhausted by the great war he could not say, but there was difficulty in getting suitable medical candidates for the Army, Navy, Air Force, or Indian service. He did not believe the reluctance to be due to rates of pay or conditions of service. He thought the pay in the Indian Medical Service and the conditions of service compared favourably with the conditions in the medical services at home. The great cause, apart from the disinclination to go abroad was uncertainty about the future of the Indian Medical Service, due to the long delay in completing the negotiations about the future. If steps could be taken to overcome that

uncertainty confidence would be restored, with a possibility of getting recruits. He urged that Earl Winterton himself should visit some of the British medical schools, or encourage officials who happened to be home in England to do so in order to explain that there was, as Sir Richard Luce himself believed, an assured future for young medical men who joined the Indian Medical Service. In that way much could be done to ensure the satisfactory recruitment of this service, and Earl Winterton, if he undertook the mission, would receive the support of the whole medical profession in England That profession looked with grave disquiet on the state of the Indian Medical Service. No official answer was returned to Sir Richard Luce's speech about the Indian Medical Service, and the India Office Estimate was not carried.

Finance Bill.

On July 7th, during the Committee stage of the Finance Bill, Sir Frank Meyer moved a new clause providing that the minimum amount of spirits which might be sold by the holder of a retail off licence should be one reputed pint bottle. Mr. McNeill, Secretary of the Treasury, in opposing the clause, said there was no demand for it. He would, however, urge the Chancellor of the Exchequer to reconsider the matter before the Report stage. Dr. Watts said that when he was in active practice he had seen many people—for example, in the great influenza epidemic—whose lives had been saved by the free administration of whisky or brandy. He had known poor people who, in times of stress and illness, had required a small quantity of spirits, but had had to go to off-licence premises and purchase a whole bottle. After the crisis there had remained, therefore, a large quantity of whisky, which was subsequently consumed, with unfortunate consequences in some cases. The clause was rejected by 170 votes to 80.

Small-pox.—Answering Dr. Vernon Davies, Mr. Chamberlain said that in the four weeks ended January 29th, 1927, the number of cases of small-pox notified in England and Wales, including London, was 2,178; in the four weeks ended February 27th, 1,808 cases; in the five weeks ended April 2nd, 2,170 cases; in the four weeks ended April 30th, 1,364 cases; in the four weeks ended May 28th, 1,202 cases; and in the five weeks ended July 2nd, 1,200 cases. The cases occurred in 214 sanitary districts.

British Forces at Shanghai—On July 12th Sir L. Worthington-Evans told Mr. Trevelyan that some increase in the sickness of the British forces in Shanghai was unfortunately to be looked for during the hot weather, but authority had been given for one battalion at a time to be sent from Shanghai to Wei-hai-Wei during the summer months. No further withdrawal of the British forces was contemplated at present.

Voronoff's Operation in Sheep.—Mr. MacRobert, replying on July 12th to Sir A. Sinclair, said the Ministry of Agriculture, in conjunction with the Board of Agriculture for Scotland, proposed to carry out an expert investigation during the autumn on Dr. Voronoff's operation in sheep.

Notes in Brief.

Mr. Chamberlain announces that the Rent Restriction Acts are to be extended for a year in their present form by including them in the Expiring Laws Continuance Bill.

No appointment had been made up till July 6th to the post of medical inspector to the Mines Department. Applications were then being received.

The Home Secretary does not propose to omit the word "acute" before bursitis in the definition of "beat-elbow" and "beat-knee" in a recent Order dealing with industrial diseases under the Workmen's Compensation Act, a Medical Research Council report having shown that bursitis is not a disabling condition where there is not acute inflammation.

The Home Secretary has stated, in reply to Sir R. Thomas, that British experience showed that the illicit importation of dangerous drugs had diminished since the passing of the Dangerous Drugs Act of 1920 No arrest of any importance for offences against that Act had been made this year.

At the end of May, 5,000 men were receiving surgical treatment from the Ministry of Pensions for war injuries.

Of 120,617 samples of food taken in England and Wales during 1926, 7,044, or 5.8 per cent. were found to be adulterated.

Medical News.

THE sixth International Congress of the History of Medicine will be held at Leyden and Amsterdam from July 18th to 23rd. Among the fifty-seven papers on the programme three are by British contributors—namely, St. Blaise, physician and martyr, by Dr. J. D. Rolleston; Boerhaave's prescriptions for some English patients, by Mr. C. J. S. Thompson; and worms in the teeth, by Mrs. Lilian Lindsay.

SUN treatment has been used for some years under the direction of Dr. J. E. Wood at King George's Sanatorium for Sailors, Bramshott, a branch of the Seamen's Hospital Society. A new ward, glazed with vita-glass, erected to facilitate this treatment, will be opened by Admiral Sir Montague Browning, on Monday next (July 18th), at 3.30 p.m., when anyone interested is invited to attend.

THE ninth annual meeting of the Mental Hospitals Association will begin at the London Guildhall on Wednesday, July 20th, at 10 a.m. A memorandum on the report of the Royal Commission on Lunacy will be presented and discussed. Further particulars can be obtained from the secretary, 5, Church Passage, Guildhall, London, E.C.2.

THE ninth International Homoeopathic Congress will be held at the Connaught Rooms, Great Queen Street, Kingsway, London, W.C., on July 18th to 23rd. At a meeting in the Mansion House on July 18th, at 5 p.m., an address on the life and work of Hahnemann will be given by Dr. C. E. Wheeler.

A LECTURE on the training of mentally defective children was delivered by Dr. E. Maria Montessori at the Æolian Hall, London, on July 5th, in aid of the Royal Free Hospital Centenary Fund. Lady Barrett, M.D., dean of the Medical School, was in the chair. Reference was made to the striking results obtained at Besford Court Catholic Mental Welfare Hospital for Children; since the introduction of her methods at that institution many of the inmates have been able to be accepted into normal life. Dr. Montessori said that hitherto mentally defective children had always been considered separately from normal children, and she thought that better results would be obtained by considering them together, as many principles could be discovered in the education of deficient children which were applicable to normal children, and conversely; a new method of education might embrace both. All children (even normal children) were ill-adapted to their environment, but normal children had to a great extent the power of adaptation within themselves, whereas with deficient children the problem was to discover the way to touch the spirit so as to enable them to develop themselves and to link them up with reality. One of Madame Montessori's lessons is that liberty and discipline are not opposite, but two sides of the same thing, and that education should develop the power of the child to control itself and not teach it to rely on control from outside. In an atmosphere of freedom the child works with joy and without fatigue. All children have sensitive periods—that is, at certain ages they will have particular capacities which should be taken advantage of when they occur, as they will decline later. Madame Montessori, it will be remembered, is a doctor of medicine, and it was through her study of the development of mentally defective children that she was led on to her work for the education of normal children, which is perhaps even more widely known.

THE Fellowship of Medicine announces that Mr. W. H. McMullen will give a lecture-demonstration on some causes and effects of defective vision in children on July 22nd, at 5 p.m., at the Royal Westminster Ophthalmic Hospital; this demonstration is free to medical practitioners. There will be an afternoon course in diseases of infants at the Infants Hospital, Vincent Square, from August 8th to 21st, with visits to the Model Pasteurizing Plant, Willesden, the Home for Blind Babies, Chorley Wood, and the V.D. Centre, Thavies Inn. From August 29th to September 10th a course in medicine, surgery, and the special departments will be held at Queen Mary's Hospital for the East End, Stratford. Besides these special courses, a comprehensive ticket is issued for any period from one week to one year for a general course of work at the associated hospitals; the post-graduate is free to arrange his own programme. Copies of all syllabuses are obtainable from the Secretary of the Fellowship, 1, Wimpole Street, W.1.

THE annual conference of the Sanitary Inspectors' Association will be held at Plymouth from September 5th to 10th. The business meeting will occupy the whole of Tuesday, September 6th, and on Wednesday morning, after an official welcome by the mayor and town council, Professor Leonard Hill, M.B., F.R.S., will deliver his presidential address. In the afternoon there will be discussions on clean milk production and on the adulteration of food. On September 8th and 9th a number of papers will be read—on housing in town and country, on the new Act as to smoke, and on various other subjects.

THE College of Pestology will hold an exhibition and conference in the Central Hall, Westminster, in September. The conference is to last from the 22nd to the 24th inclusive, and it is proposed to invite delegates from all parts of the world. The agenda as at present arranged will include the discussion of such subjects as the diptera (mosquitos, gnats, flies), the destruction of vermin, and other matters relating to public health. A hospitality committee will take in hand the entertainment of delegates from abroad, and it is proposed to devote an afternoon to an excursion to some locality of interest outside London, to be followed by a banquet and dance in the evening. The Ministry of Agriculture, the Office of Works, the Metropolitan Water Board, and several large firms have already promised support, and it is anticipated that the exhibition will be one of considerable interest. The address of the College is 52, Bedford Square, London, W.C.1.

IN a circular dated June 29th the Ministry of Health draws the attention of local authorities to the fact that traces of some of the prohibited preservatives and colouring matters are naturally present in certain foods—for example, boric acid and benzoic acid in some fruits, and copper in peas and other vegetables. The quantities so present are usually insignificant, being much less than those which would be required for effective preservation or artificial colouring. What the regulations prohibit is the importation, manufacture, or sale of articles of food containing *added* preservative or colouring matter. It therefore appears to the Ministry to be desirable that local authorities, before instituting legal proceedings under the new Act in respect of the presence of small traces, should satisfy themselves that the circumstances are such as to afford prima facie grounds for the assumption that the prohibited substances have been artificially introduced. The circular recommends also that legal proceedings should not be taken during the next few months in respect of old stocks of hams and bacon preserved by borax where local authorities are satisfied that reasonable efforts have been made to clear such stocks and that further consignments will conform with the regulations.

THE fourth International Congress of Individual Psychology will be held at Vienna from September 16th to 19th, when papers will be read on the incidence and treatment of mental disease, destitution, and criminality—their occurrence and management at school and at home. Further information can be obtained from the office of the Congress Untere Weizgärberstrasse 16/17, Vienna III.2.

DR. SERAPHIN BOUCHER (Department of Health, Montreal, Canada), Dr. L. S. Fridericia (the University Institute of Hygiene, Copenhagen), Colonel P. H. Henderson, R.A.M.C. College, Millbank, and Dr. R. M. F. Picken (M.O.H., Cardiff), have been elected Fellows of the Royal Sanitary Institute.

MESSRS. A. WANDER, LTD., who recently presented £10,000 for the endowment of a chair of dietetics in the University of London, have now given £4,000 to the Registered Nurses' Bureau, Chancery Lane, W.C.2.

DR. R. LE FLEMING SHEPHERD of Derby informs us that he was invited to the 900th birthday celebrations of William the Conqueror held at Falaise last week, as representative of Sir William le Fleming, Bt., of Rydal, who is descended from Sir Michael le Fleming, a kinsman of Baldwin, Earl of Flanders, to whom the Conqueror granted lands and manors in Westmorland, Cumberland, and Lancashire, for having assisted him against the Scots. These lands are still in the possession of the le Fleming family.

THE triennial congress of the International Institute of Anthropology will be held at Amsterdam from September 19th to 24th, under the presidency of Professor J. P. Kleiweg de Zwaan. It will comprise six sections: (1) physical anthropology, (2) ethnography and ethnology, (3) heredity and eugenics, (4) sociology and criminology, (5) prehistory, (6) folklore. The official languages will be French, German, English, Dutch, Spanish, and Italian. Further information can be obtained from the secretary, Dr. I. J. Brugmans, Fraus van Mierisstraat 134, Amsterdam.

THE eighteenth congress of the Italian Phreniatric Society will be held at Trent under the presidency of Professor Alberti in the autumn, when the subjects discussed will include endocranial tension and its relation to neuroses and psychoses, by Drs. G. Ayala and Boschi, and changes in the structure of the cortical cells in mental diseases, by Drs. Cerletti and Bonfiglio.

THE eighteenth Italian Congress of Hydrology, Climatology, and Therapy will be held at Milan in October, when the principal subjects for discussion will be: (1) the mechanism of the action of mineral waters; (2) the residence of tuberculous patients in health resorts. Further information can be obtained from Comitato Congresso Idrologico, Via S. Paolo 10, Milan.

A POST-GRADUATE course in dermatology and venereology will be held at Strasbourg from September 19th to November 5th, under the directorship of Professor L. M. Pautrier. The fee is 300 francs. A special pathological course, consisting of twenty lectures on the principal laboratory methods, and the general pathological anatomy of the dermatoses, will be held during the same period, individual tuition being given in the various practical manipulations. The fee for the laboratory course is 300 francs. Further information may be obtained from Professor Pautrier, 2, Quai St. Nicolas, Strasbourg.

DR. BÉCLÈRE has been elected vice-president of the Académie de Médecine of Paris in place of Dr. Balzer, who has resigned.

AT the Russian Pasteur Institute, Moscow, 130,000 persons bitten by mad dogs have been treated during the forty years of its existence. The largest number in one year—namely, 9,000, received treatment in 1916.

Letters, Notes, and Answers.

All communications in regard to editorial business should be addressed to ***The EDITOR, British Medical Journal, British Medical Association House, Tavistock Square, W.C.1.***

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MEDICAL SECRETARY, *Mediscera Westcent, London.*

The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin (telegrams: *Bacillus, Dublin*; telephone: 4737 Dublin), and of the Scottish Office, 6, Drumsheugh Gardens, Edinburgh (telegrams: *Associate, Edinburgh*; telephone: 4361 Central).

QUERIES AND ANSWERS.

THE APPENDIX AND THE BARIUM MEAL.

DR. T. LIONEL CRAWHALL (Durham) asks whether a barium meal penetrates into the lumen of a normal appendix?

TREATMENT OF THREADWORMS.

"INDIA" asks for advice in the treatment of persistent threadworm infestation in a boy of 5 years. It is desired to avoid local treatment, if possible.

GRAFTS FOR CORNEAL OPACITIES.

DR. J. F. COLLINS (North Sydney, N.S.W.) asks for further information about the following passage which appeared in the review of a book by Duverger and Velter (JOURNAL, April 2nd, p. 631): "In the surgery of the cornea . . . superficial corneal grafts are suggested as worthy of a trial in some cases of central opacity." Our correspondent wishes to know whether operations for corneal grafts have been performed in England or on the continent of Europe, and, if so, with what results?

*** The conditions suggested by Duverger and Velter are: first, that the other eye should be totally useless, and secondly, that the opacity should not extend beyond the most superficial layers of the cornea; if a graft be attempted to replace an opacity in the substance of the cornea, the invariable result is that in eight to fifteen days a condition resembling interstitial keratitis appears, and in a few weeks the graft becomes totally opaque. The general impression given by their writing is that the procedure should only be undertaken as a last resort. Corneal grafting has never been practised extensively with success in this country to our knowledge. In German and French literature several reports have appeared, but the results have not by any means been uniformly successful. We understand that at the moment some experimental work is being carried out on animals in England on the question, the results of which will probably be published in the future; but in the meantime the procedure should only be considered with the greatest reserve and only in such cases as have nothing to lose.

INCOME TAX.

Purchase of Practice.

"E. G." has purchased a practice and is told that he will not be assessed on his receipts, but on his earnings.

*** That is so, except that he may claim to deduct from the amount of the bookings that portion of the outstanding debts which will probably prove to be "bad." With regard to the car transaction, he is entitled to deduct the net cost of renewal (excluding improvements), less the amount of depreciation allowed on the old car. If no such depreciation has been received it may pay "E. G." better in the long run to drop the claim for the renewal—or, rather, the obsolescence allowance—to preserve his right to the depreciation allowance on the new car.

"J. S. W." is being assessed in respect of cash received by him from a practice which he disposed of on March 31st, 1926.

*** Strictly, this is incorrect. When he took over that practice in 1920 he should have been assessed not on that portion of the total professional earnings which were being received in cash, but on the full amount—that is, on the basis of the value of his bookings. It would then have been clear that as from March 31st, 1926, he could not be liable to tax in respect of book debts subsequently collected. If he now refuses to pay on such sums the inspector would be within his rights in revising the assessments from April 5th, 1922, onwards, in which case the same result would probably be reached with rather more trouble to everybody, including our correspondent. In the circumstances he might feel disposed to acquiesce in the charging of the receipts after March 31st, 1926, for, say, this year and next if the local inspector will then drop the matter as not worth pursuing.

"T. N. W.," on his return from the army in 1921, sold his practice for £50. He paid tax "on the income which he obtained from the practice when abroad."

*** If the practice was being carried on for him and the "income" referred to represented that portion of the earnings which he was entitled to receive, he was rightly regarded as liable to tax thereon. But if the practice was then suspended, so that the amounts received represented *only* debts recovered in respect of earlier years when the practice was being carried on, then we consider he was not liable to tax. The £50 is, of course, a receipt of capital and not income.

Purchase of House.

"J. P. W." has purchased a house, the renovating, redecorating, and legal expenses having amounted to £200. Can he charge any portion to the practice?

*** No; following a decision of the Scottish courts, such expenses would apparently have to be regarded as "capital" for the purposes of Schedule D. But "J. P. W." should apply to the local inspector of taxes for relief in respect of Schedule A tax in regard to the excess of the average repairs, etc., of the past five years over the amount allowed from the gross Schedule A assessment. It will probably be necessary to obtain some figures from the previous owner, but the inspector may be able to accept or suggest some reasonable compromise. The legal expenses are not allowable under either schedule.

Motor Car Transactions.

"J. A. W. W." bought a car when not in practice and has since used it—though not continuously—for professional purposes. He sold it last December for £22 and bought another car for £190.

*** He cannot claim cost of replacement and depreciation allowance simultaneously. If he claims the former he is, in our opinion, entitled to treat £190−£22=£168 as a professional expense of the year 1925: the amount of professional use appears to justify this claim. On the other hand, if he gives up that claim he is entitled to a depreciation allowance on £190 at, say, 20 per cent. for 1927–28 and future. The former claim seems to be the "bird in the hand" in the special circumstances.

"R. D." bought a car, H, in 1922 for £450 and sold it in 1926 for £100, buying P for £425. This car proved unsatisfactory, and he sold it nine months later, in the same financial year, for £262, buying in its place H2 for £350. He has received depreciation allowance, £46 for 1925–26 and £36 for 1926–27, and is now offered, in addition, an obsolescence allowance of £48 for the H car.

*** In our view the obsolescence allowance should be as follows:

Cost of car replaced			£450
Deduct—Total allowances "made"	£ 84		
Sum realized by sale	100		
		184	
Total			£265

The "depreciation" allowance cannot be claimed for years prior to 1925–26, when the Finance Act for that year extended it to professional men.

"R. D. A." bought a car D in 1914 for £400, replaced it in 1925 by another B, costing £250, and has now replaced that car by A, costing £395. Should the obsolescence allowance be based on a gross figure of £250 or £400?

*** The obsolescence allowance is based on "so much of the amount expended in the year . . . as is equivalent to the cost of the plant or machinery replaced"—less, of course, the amount of any depreciation allowances given thereon. The cost of the car displaced was £250, and "R. D. A." is not legally entitled to bring into the calculation the cost of an earlier car, though from an equitable point of view it would be reasonable to do so. This case illustrates the advantage of taking full advantage of the depreciation allowance.

"W. H. S." bought a second-hand car in March, 1926, for £175, receiving £80 for his former car. Finding that the running and repair cost was too great, he sold it in August, 1926, for £150 and bought a new car for £300. He was allowed £29 depreciation for 1926–27, and is offered £45 for 1927–28.

*** The £45 depreciation is acceptable in respect of the present car; the point to be settled is whether "W. H. S." should press for an allowance in respect of the net expenditure on purchase of the former one—that is, of the £25 lost on its re-sale. In our opinion he may very properly do so. The circumstances are unusual, in that the car, having been bought and sold in the same year, he was never in a position to claim depreciation thereon. The claim appears to be within No. 7 of the Rules, applicable to Cases I and II, Schedule D, the amount of the depreciation to be taken into account for that purpose being *nil*.

LETTERS, NOTES, ETC.

IMPERMEABLE FLOORS FOR HOSPITAL WARDS.

IT may be convenient that we should add to the answer given last week (p. 86) with regard to impermeable floors for hospital wards, that the rubber floors in the British Medical Association House were supplied by the Leyland and Birmingham Rubber Co., Ltd., Leyland, near Preston.

NON-SYPHILITIC GENITAL SPIRILLOSIS.

DR. C. F. X. O'SULLIVAN (Ballymoe, co. Galway) writes: In the *Epitome* (July 2nd, para. 4) a simple balanitis is described as due to Vincent's spirillum in association with anaerobic organisms. In this connexion it is interesting to note that I attended a young man very recently with ulcerative stomatitis; he had also a coexisting simple balanitis. I had not seen such a curious combination of symptoms before. I have no doubt that the infecting organism was Vincent's spirillum.

CANCER AND ACIDITY.

DR. J. BARKER SMITH (London), who, in the course of a note on this subject, observes that Dr. A. Mackenzie has once more aroused interest in the fundamentals of acidity and alkalinity with respect to tissue soil condition and cancer, writes: I feel justified in bringing to the notice of your readers the conclusions of two French savants, worthy of our attention by their prolonged experimental work. These conclusions, now twenty years old, have been neglected. Joulie has suggested in his book, *Urologie Pratique et Thérapeutique Nouvelle* (1907), that cancerous people give hypophosphatic urine, and that the urine of those operated upon for cancer should be examined and kept hyperphosphatic. Joulie's method of analysis is described by Dr. E. Graham Little in the *Practitioner* of July, 1911, and is also to be found in Martindale and Westcott's *Extra Pharmacopoeia*. Now Joulie's method is somewhat complicated by using two forms of expression—sulphuric acidity instead of phosphoric anhydride acidity, and I think good lime water could be used for the unsatisfactory sucrate of lime. I have, moreover, in my brochure, *Quantitative Analysis*, and elsewhere, suggested two simple test tube experiments which might give us Joulie's condition of urine in a few minutes. Emile Gautrelet, in his *Physiologie Uroséméiologique* (1906), says (p. 243) that a lowering of the fixed elements of urea and of acidity, in the absence of peptone, suggest the cancerous diathesis.

FOREIGN BODY IN RECTUM.

DR. J. G. ROSS (Whitby) writes: The case recounted by Dr. D. Owen Williams in the JOURNAL of May 21st (p. 946) reminds me of a case that occurred some twenty-five years ago. I was called to see a young primipara and found her advanced in labour, with the head nearly on the perineum. With each uterine contraction she shrieked with pain in the rectum. I tried to examine the rectum, but the bulging caused by the descending head prevented this, and it was not until after the child was born that I could examine adequately. I could then feel, high up in the rectum, a hard, indefinite foreign body, which I managed with considerable difficulty to remove; it proved to be the hard nozzle of an enema syringe. The edge of the bony shield of the nozzle must have caused great pain. It transpired that a handy woman had given an enema before my arrival, and she must have pushed the nozzle too firmly into the patulous anus, past the sphincter, whence it became detached from the old and weak rubber tubing of the syringe, and was imprisoned in the rectum. Instead of pushing the nozzle downwards, the advancing head pushed it further upwards. Fortunately no damage was done, and the puerperium was uneventful.

VACANCIES.

NOTIFICATIONS of offices vacant in universities, medical colleges, and of vacant resident and other appointments at hospitals, will be found at pages 51, 52, 53, 56 and 57 of our advertisement columns, and advertisements as to partnerships, assistantships, and locumtenencies at pages 54 and 55.

A short summary of vacant posts notified in the advertisement columns appears in the *Supplement* at page 24